

1 STATE OF MINNESOTA DISTRICT COURT
2 COUNTY OF RAMSEY SECOND JUDICIAL DISTRICT
3 - - - - -

4 The State of Minnesota,
5 by Hubert H. Humphrey, III,
6 its attorney general,
7 and
8 Blue Cross and Blue Shield
9 of Minnesota,

10 Plaintiffs,

11 vs. File No. C1-94-8565

12 Philip Morris Incorporated, R.J.
13 Reynolds Tobacco Company, Brown
14 & Williamson Tobacco Corporation,
15 B.A.T. Industries P.L.C., Lorillard
16 Tobacco Company, The American
17 Tobacco Company, Liggett Group, Inc.,
18 The Council for Tobacco Research-U.S.A.,
19 Inc., and The Tobacco Institute, Inc.,

20 Defendants.
21 - - - - -

22 DEPOSITION OF CLAUDE E. TEAGUE, JR.
23 Volume II, Pages 115 - 253
24
25

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C O N F I D E N T I A L

1 (The following is the Deposition of CLAUDE
2 E. TEAGUE, JR., taken pursuant to Notice of Taking
3 Deposition, by videotape, at the offices of Womble
4 Carlyle Sandridge & Rice, Attorneys at Law, 200 West
5 Second Street, Winston-Salem, North Carolina, on July
6 9, 1997, commencing at approximately 1:31 o'clock
7 p.m.)
8

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15 E X A M I N A T I O N I N D E X
16 WITNESS EXAMINED BY PAGE
17 Claude E. Teague, Jr. Mr. O'Fallon 121
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1 E X H I B I T I N D E X
2 EXHIBIT DESCRIPTION PAGE
3 Plaintiffs'
4 1091 Cigarette "Substitute" Concept 131
5 Study, 501001796-501001857
6 1092 Updated Review and Analyses of 210
7 1974 Competitive Brand Data,
8 500615944-5960
9 1093 Report, DRAFT 8-9-82 AMMONIA, 223
10 500540827-0823
11 1094 Memo, Bernasek and Nystrom to 224
12 DiMarco, 504438506-8512
13
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1 P R O C E E D I N G S
2 (Witness previously sworn.)
3 CLAUDE E. TEAGUE, JR.
4 called as a witness, being previously sworn,
5 was examined and testified as follows:
6 ADVERSE EXAMINATION
7 BY MR. O'FALLON:
8 Q. Dr. Teague, how are you feeling this morning?
9 A. Okay. On a scale of 1 to 10, I'm about an 8
10 this morning. I'm about a quart low.
11 Q. Between the time that we ended our deposition
12 yesterday and today, have you had an opportunity to
13 meet again with the lawyers in this case?

14 A. No. I rode home, rode over in my car with Bill,
15 but we didn't -- I don't think we talked about the
16 case.
17 Q. When we left off yesterday, we were talking
18 about the research planning memorandum on the nature
19 of tobacco business and the crucial role of nicotine
20 therein, a document that you wrote; correct?
21 A. Uh-huh. The one I have here, right.
22 Q. And that's been marked in this case as Exhibit
23 1057.
24 A. Uh-huh.
25 Q. I ask you to turn to the page we left off on
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1 yesterday, which is numbered -- Bates numbered
2 500915685.
3 A. Okay.
4 Q. Are you there?
5 A. That's page 3.
6 Q. Yes, 3 at the top.
7 A. Okay.
8 Q. When we left off yesterday, we were talking
9 about the fact that nicotine and cigarettes compete
10 to some extent with the drug industry; correct?
11 A. Yeah, like coffee does, many things do.
12 Q. In the second paragraph on page 3, you state
13 that quote, "Happily for the tobacco industry,
14 nicotine is both habituating and unique in its
15 variety of physiological actions, hence no other
16 active material or combination of materials provides
17 equivalent 'satisfaction,'" end quote, correct?
18 A. Yes, sir.
19 Q. "Satisfaction" is the word that you used to
20 refer to the physiological effect that nicotine has
21 on the smoker; correct?
22 A. I'm trying to think. Nicotine has a number of
23 effects and I don't know whether I lumped them all
24 together and called them, you know, flavor, aroma,
25 mouth feel, alkalinity, whatever. I just don't
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1 remember which sense I was using it in. You know,
2 that's -- we can both guess at what I wrote there
3 back in the '70s.
4 Q. But that would be a fair interpretation of that
5 sentence; correct, sir?
6 MR. DAVIS: Objection.
7 A. That would be one interpretation, but I just
8 said I don't really know whether it's -- whether
9 that's what I meant or not. Since I don't really
10 remember writing the thing it's hard to say.
11 Q. The reason it's a happy event to the tobacco
12 industry that nicotine is both habituating and unique
13 in its physiological actions is because the tobacco
14 industry knows that once a cigarette smoker gets
15 hooked on cigarettes, that they will continue to
16 smoke them and continue to buy them: Correct?
17 MR. McELVEEN: Objection, objection.
18 A. I don't believe that at all.

19 MR. McELVEEN: I'm sorry, Dr. Teague. Can
20 I make an objection for the record?
21 THE WITNESS: Sure.
22 MR. McELVEEN: My objection simply goes to
23 the request for conclusion on the part of somebody
24 other than himself; that is, the tobacco industry.
25 Q. At least it's a happy event for R.J. Reynolds
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1 because if they design a cigarette that delivers the
2 amount of nicotine necessary for the smoker and the
3 smoker gets hooked on those cigarettes, then
4 hopefully, for R.J. Reynolds, the cigarette smoker
5 will continue to buy those cigarettes and R.J.
6 Reynolds will continue to profit; correct?
7 A. Not necessarily.
8 Q. You didn't --
9 A. You could say the same thing for coffee, say
10 Maxwell House. The caffeine is fairly unique, it is
11 habituating. To that degree, it makes their product
12 a little more unique and a little more attractive, so
13 forth. So most of the places this says nicotine, you
14 can substitute caffeine and come out with the same
15 thing.
16 Q. Well I could substitute any number of addictive
17 drugs; correct?
18 MR. DAVIS: Objection.
19 MR. McELVEEN: Objection, that misstates --
20 (Interruption by the reporter.)
21 MR. McELVEEN: Objection, that misstates
22 the witness' testimony.
23 MR. DAVIS: Go ahead.
24 A. I don't think in any amount of documents
25 anywhere I would be surprised if you found the word
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1 "addicting." Habituating, yes, comes right out of
2 the surgeon general's report of '64, I believe.
3 Q. Well, if it's your practice to quote surgeon
4 general's reports and you wrote a report after 1988
5 you would use the word addicting since that's what's
6 in the surgeon general's report in 1988; correct?
7 MR. DAVIS: Objection.
8 A. Your logic is flawed.
9 Q. You then state that, quote, if nicotine is the
10 sine qua non of tobacco products and tobacco products
11 is recognized as being attractive dosage forms of
12 nicotine, then it is logical to design our products
13 -- and where possible, our advertising -- around
14 nicotine delivery rather than tar delivery or
15 flavor. Correct?
16 A. Uh-huh. That's what it says. It starts with a
17 big if, though.
18 Q. Now in fact the tobacco industry has not
19 advertised the role of nicotine in its products, has
20 it?
21 A. I sure don't know. Nothing comes to mind, but I
22 don't know --
23 Q. In point of fact, at least, R.J. Reynolds

24 deliberately downplayed or played down the role of
25 nicotine; correct?

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1 A. I don't think so.
2 Q. Why don't you --
3 A. I don't know.
4 Q. Why don't you look on page 5 of this memo, Bates
5 number 500915687.
6 A. Page 5. Where are we?
7 Q. Do you see that? Let's go down -- You are
8 talking here in the first full paragraph leaving out
9 that top partial paragraph, --
10 A. Uh-huh.
11 Q. -- about how you should emphasize nicotine;
12 correct?
13 A. Could I read it just a minute, --
14 Q. Absolutely.
15 A. -- see what it says?
16 My god, that's well written.
17 Okay. I've finished that paragraph, yeah.
18 Q. And I would agree with you, Dr. Teague, as you
19 said while you were looking at what you stated here,
20 that it is well written. And so let's read to the
21 jury exactly what it is you wrote. You start and
22 say, quote, if what we have said about the habituated
23 smoker is true, then products designed for him should
24 emphasize nicotine, nicotine delivery efficiency,
25 nicotine satisfaction, and the like. What we should

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1 really make and sell would be the proper dosage form
2 of nicotine with as many other built-in attractions
3 and gratifications as possible -- that is, an
4 efficient nicotine delivery system with satisfactory
5 flavor, mildness, convenience, cost, et cetera. On
6 the other hand, if we want to attract a non-smoker or
7 presmoker, there is nothing in this type of product
8 that he would currently understand or desire. We
9 have deliberately played down the role of nicotine,
10 hence the non-smoker has little or no knowledge of
11 what satisfactions it may offer him, and no desire to
12 try it.

13 Now, the reason that R.J. Reynolds deliberately
14 downplayed the role of nicotine is that you knew,
15 based upon research you had done of consumers, that
16 consumers considered nicotine harmful; correct?

17 MR. DAVIS: Objection. Go ahead.

18 MR. McELVEEN: Go ahead.

19 MR. DAVIS: I made an objection for the
20 record. You go ahead and answer.

21 A. I've forgotten what your question is. Could you
22 read it back or something?

23 Q. I said: Now, the reason that R.J. Reynolds
24 downplayed or played down the role of nicotine is
25 that you knew, R.J. Reynolds and you personally, Dr.

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1 Teague, knew, that based upon research you had done
2 of consumers, that consumers considered nicotine
3 harmful; correct?

4 MR. DAVIS: Objection.

5 MR. McELVEEN: Let me pose an objection to
6 that question on the basis it calls for a conclusion
7 of somebody other than Dr. Teague. To the extent he
8 has knowledge, I wouldn't object.

9 Q. Correct? Is that true?

10 A. Well what he said or --

11 Q. What I said, sir.

12 A. I'm getting lost.

13 Q. Sir, you are required here to answer my
14 questions. He can state his objections for the
15 record, and pursuant to my court's orders he is
16 supposed to limit those objections to make them as
17 short as possible. But the point is is that you are
18 entitled -- I'm entitled to an answer to my question.

19 A. Well I agree with what he said.

20 Q. Well what he said was an objection.

21 A. Can't I agree with an objection? I'll buy into
22 his objection. Can't I do that?

23 Q. Sir, is the reason that R.J. Reynolds downplayed
24 the role of nicotine is because R.J. Reynolds and you
25 personally knew that consumers believed nicotine was

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1 harmful?

2 MR. DAVIS: Objection. Go ahead.

3 A. I don't know what R.J. Reynolds knew. I'm not
4 saying I knew this. I said if what we have said
5 about the habituated smoker is true, then, and so
6 forth, so this is all in a -- have you studied
7 Boolean logic?

8 Q. Do you understand, sir, that --

9 Is it your testimony that you did or did not
10 know that consumers believed nicotine was harmful?

11 A. I didn't testify to either of those, sir.

12 Q. Okay. Is it the reason --

13 Is the reason that R.J. Reynolds downplayed the
14 role of nicotine in their cigarettes is because
15 consumers believed nicotine was harmful?

16 MR. DAVIS: Objection. Go ahead.

17 A. Number one, I'm not sure R.J. Reynolds
18 downplayed it. They may not have up played it. I
19 don't know.

20 Q. Well you stated here that --

21 A. The other thing is, I don't know what R.J.
22 Reynolds thought or knew or what R.J. Reynolds is
23 some -- you know, that's a company and I'm a little
24 guy off here, a rookie.

25 Q. You understand that --

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1 Well, a rookie. At this point in time you are
2 the assistant director of research.

3 A. Well I'm a rookie in this kind of thing that
4 came out of a school I went to, but you haven't

5 gotten into that.
6 Q. The reality is, sir, that you have been doing
7 and looking at nicotine for some time before you
8 wrote this memo; correct?
9 A. No.
10 Q. You haven't?
11 A. I don't think so.
12 Q. You haven't done any research prior to this
13 time, and this is what, nineteen seventy --
14 A. I think I told you yesterday I made --
15 Q. -- two, on nicotine?
16 A. -- some fluoro nicotine compounds in my whatever
17 time you called it, free time. I don't think I've
18 done any research other than that that I recall. I
19 certainly haven't testified --
20 Q. But you certainly have been involved in
21 large-scale projects at R.J. Reynolds to, for
22 instance, design alternative nicotine-delivery
23 devices, haven't you?
24 MR. McELVEEN: Are we talking as of 1972
25 here?

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1 MR. O'FALLON: And prior to that.
2 A. No, I don't believe so. Prior to 1972?
3 MR. O'FALLON: I'm going to mark as the
4 next document a document Bates stamp numbered
5 501001796 through 501001857. It's entitled
6 "CIGARETTE 'SUBSTITUTE' CONCEPT STUDY."
7 (Plaintiffs' Deposition Exhibit 1091 was
8 marked for identification.)
9 BY MR. O'FALLON:
10 Q. I'm going to hand you the document that I've
11 previously identified and which has now been marked
12 as Exhibit 1091, a document entitled on the first
13 page "CIGARETTE 'SUBSTITUTE' CONCEPT STUDY," and on
14 the second page entitled "Consumer Research Report
15 MRD #02-340, May 20, 1970."
16 And do you recognize that document?
17 A. I think late Monday afternoon we spent half an
18 hour kind of looking at some documents that you had
19 indicated, I believe, that you might or might not
20 want to discuss. I remember seeing this one. I have
21 zero recollection of ever seeing the thing.
22 Q. You are copied on this document, aren't you,
23 sir?
24 A. I'm on the distribution here on the copy list,
25 right.

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1 Q. Your name is listed on the page Bates stamped
2 501001797; correct, sir?
3 A. That's what I just said, yeah.
4 Q. Who are those other people that are listed on
5 this document?
6 A. What do you mean, "who are they"?
7 Q. Who were they at the time? What were their
8 titles at the time?
9 A. Murray Senkus was director of research, I

10 believe, and Ed Vassallo was the vice president for
11 R&D. I don't know what his official title was. That
12 was his function.
13 Q. How about Mr. W. S. Smith, Jr.
14 A. W. S. Smith, Jr. doesn't ring any bells. There
15 was a Bill Smith, I think, in marketing, sales or
16 something.
17 Q. Let's look on the first actual page past the
18 cover sheet of this document Bates numbered
19 501001798. Are you there?
20 A. May 20th, 1970?
21 Q. Right.
22 A. Okay.
23 Q. This document is specifically addressed to you,
24 isn't it, sir?
25 A. I believe that's true, yeah. My name's at the
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1 top.
2 Q. Right. And this document was written by a
3 gentleman by the name of L period W period Hall, Jr.
4 from the marketing research department; correct?
5 A. Where do you see -- I haven't read this at all.
6 Q. Why don't you look on page 501001801.
7 A. L. W. Hall, marketing research department,
8 right.
9 Q. He appears to be the author of this document;
10 correct?
11 A. I assume. If he signed it he probably was.
12 Q. Let's go back to the first page.
13 A. Okay.
14 Q. It states that the purpose of the study, that
15 this study was designed and conducted to determine --
16 A. Whoa. Where are you, "BACKGROUND"?
17 Q. I'm under "PURPOSE." Do you see "PURPOSE"?
18 A. Uh-huh.
19 Q. "This study was designed and conducted to
20 determine consumer attitudes toward and relevant to
21 the idea of a 'substitute' product for cigarettes";
22 correct?
23 A. That's what it says.
24 Q. Let's go down to the summary of findings. It
25 says, "Our research design was influenced a great
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1 extent by our assumption a prime chemical provider of
2 satisfaction in smoking is nicotine"; correct?
3 A. That's -- Let me read the footnote, too.
4 Okay.
5 Q. So one of the primary reasons this particular
6 study was being done was that you were testing an
7 assumption that a prime chemical provider of
8 satisfaction in smoking is nicotine; right?
9 MR. DAVIS: Objection. Go ahead.
10 A. It wasn't my study.
11 Q. Well it's to you so I assume at some point you
12 directed it, didn't you?
13 MR. DAVIS: Objection.
14 Q. Are you going to testify you did not direct this

15 study, sir?
16 A. I believe I would.
17 Q. Okay.
18 A. I was never in marketing research.
19 Q. Why don't we go to page 501001802.
20 A. 1802, okay.
21 Q. See where it says at the top there "CIGARETTE
22 SUBSTITUTE CONCEPT STUDY"?
23 A. Uh-huh.
24 Q. And it goes through and talks about interviews
25 being conducted?

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1 A. I'm sorry. I haven't seen this.
2 Q. Sir --
3 A. I have zero recollection. If you want me to go
4 out and study it and read it, I'd be glad to do it.
5 Q. What I'm trying to do is have you look at the
6 document. I'm trying to refresh your recollection
7 with this document.
8 A. I can't -- My mind doesn't work in fragments
9 that way. I think we are jumping all around. You
10 are saying I said so and so. I don't know whether I
11 said it or not.
12 Q. Sir, would you please look at page 501001802.
13 Are you on that page? It's the page I directed you
14 to.
15 A. What page now, 1802?
16 Q. Right.
17 A. Okay, I'm with you.
18 Q. Okay. It says down there about three-fifths of
19 the way down who requested this study, doesn't it,
20 sir?

MR. DAVIS: Objection.
22 A. Where are you? Oh, "requested by."
23 Q. It's been requested by you, hasn't it, sir?
24 A. That's what this says. Like I say, I have no
25 recollection of the report or certainly requesting
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1 it, but let's go back a minute. You said I was
2 directing it. Requesting and directing are entirely
3 two different things, I believe. Would you agree to
4 that?
5 Q. So you did request it, you will admit to that?
6 A. No. I said I don't remember. I don't know
7 whether I did or didn't. I just flat don't
8 remember. I'm sorry.
9 Q. Do you think this report is inaccurate, sir?
10 A. Well, I asked if I could read the report and you
11 said no, so how can I say the whole report's accurate
12 or inaccurate? You know, I mean, let's be fair about
13 it.
14 Q. You understand that this is a report published
15 by the marketing research department of R.J. Reynolds
16 Tobacco Company, Winston-Salem, North Carolina;
17 correct?
18 MR. DAVIS: Dr. Teague, if you need to sit
19 there and read the whole report to answer his

20 questions, you may take the time to read the report.
21 A. Do you want me to read the report?
22 Q. This request -- Is this a report published by
23 the marketing research department, R.J. Reynolds
24 Tobacco Company, Winston-Salem, North Carolina?
25 A. That's what it says right there, bottom of the
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1 title page.
2 Q. Does this look like the usual form in which
3 original reports from the marketing department were
4 published?
5 A. I don't recall seeing it.
6 Q. This certainly appears to be a document
7 generated by an R.J. Reynolds employee; correct?
8 A. Well, it -- the guy that signed it, his name is
9 -- what did you say? We looked at that before. I
10 assume he was an employee, but I don't know that for
11 a fact.
12 Q. This was a document generated in the ordinary
13 course of business, wasn't it, sir?
14 A. How would I know?
15 Q. It appears you received it in the ordinary
16 course of business; correct, sir?
17 A. I can get reports. I get all kinds of reports
18 from all kinds of places. I don't know how or why
19 that many of them are generated.
20 Q. And it appears you at least requested part of
21 this report or part of the --
22 A. It says so but I have zero recollection. I
23 can't --
24 Q. You have reason to believe that the information
25 stated in this report is untrue; correct?
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1 MR. DAVIS: Objection.
2 A. Well, he objected. Are you going to respond to
3 that?
4 Q. I don't have to respond to his objections. It's
5 up to you to answer the question.
6 MR. DAVIS: My objection is for the
7 record. If you can answer the question, Dr.
8 Teague --
9 Q. Maybe I should just explain that to you, Dr.
10 Teague. You see, your attorney is entitled to make
11 what objections he deems appropriate for the record,
12 as is R.J. Reynolds' attorneys, and then --
13 A. Can --
14 Q. -- you have to answer my questions.
15 A. Can I also make objections?
16 Q. No.
17 A. That's not fair.
18 Q. Well --
19 A. What can I do?
20 Q. You can answer my question, sir.
21 MR. DAVIS: You can ask him to repeat the
22 question or explain the question if it's not clear to
23 you or if you need to take time to read something to
24 answer the question, you can do that, Dr. Teague, but

25 he asks the questions. To the extent you can, you
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1 have to answer.
2 A. I've forgotten. What did you ask, now? Do you
3 want to have a go at it again?
4 Q. Well, my question is: Do you have any reason to
5 doubt that the information contained in this document
6 is true?
7 MR. DAVIS: Objection. Go ahead.
8 A. I just said I don't remember it so I have no
9 reason to -- to -- whatever I -- I don't know whether
10 that's true or false, whether what you said is true
11 or false. If I don't know, I can't tell you. I'm
12 sorry.
13 Q. Well let's look on page 501001801, and let's go
14 through the conclusion that Mr. Hall reported to
15 you. Let me just ask you a general question. You
16 understand that what happened here was a consumer
17 study was done; correct?
18 A. I haven't read it. I don't know. I really
19 don't know.
20 Q. I thought you said you spent time with it with
21 your attorneys before you came to this deposition.
22 A. What I said was: We spent about a half an hour
23 going through a stack about that high that you had --
24 had notified them that might be -- I might be asked
25 about. I think I flipped over this one, so I don't

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1 remember a thing about it. That's as far as it
2 went.
3 Q. Well then let's go back to 501001799 for a
4 second. We seem to be unclear about what this
5 document talks about.
6 A. I think I better go find a room and spend about
7 a half hour reading this thing if you are going to
8 ask me this kind of question about it. You know,
9 I've already told you, sir, --
10 Q. Sir --
11 A. -- I don't know. I don't remember the report, I
12 don't remember ever seeing it and I certainly don't
13 remember what's in it and --
14 Q. And we are going to go through some of the
15 information that's in it.
16 A. Yeah, but --
17 Q. Let's look on page 1799. Now, it states on the
18 first full paragraph that, quote, "Our first task was
19 to determine smokers' attitudes about nicotine (and
20 parallel matters), for such attitudes would be
21 important in determining how our new product should
22 be promoted, or indeed, even if our product should
23 contain nicotine"; correct?
24 A. You are reading it, I'm listening.
25 Q. So it appears one of the things you did is went

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1 out and surveyed smokers' attitudes?

2 MR. McELVEEN: Objection, I think that
3 mischaracterizes what he says.

4 Q. That the company went out and surveyed smokers'
5 attitudes?

6 A. I don't know who did. Somebody did. That's
7 fine. I was not a party to it, I don't believe.

8 Q. You are going to testify you were not a party to
9 this project or that you were not a party to actually
10 doing the consumer interviews?

11 MR. DAVIS: Mr. O'Fallon -- Excuse me. I
12 want to object for the record. He has told you that
13 he doesn't remember this, that he hasn't read it and
14 he doesn't recall it. Now --

15 MR. O'FALLON: Sir, as you understand, in a
16 court of law I'd be entitled to refresh his
17 recollection. That's what we are in. We are in a
18 court of law, I'm in front of the jury and I'm using
19 these documents to try to refresh this gentlemen's
20 recollection. This is a document that clearly went
21 to him.

22 MR. DAVIS: The document clearly speaks for
23 itself.

24 MR. O'FALLON: I never heard a document
25 talk, sir.

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1 MR. DAVIS: You never heard the term, have
2 you, sir? You never heard the term "speaks for
3 itself"?

4 MR. O'FALLON: If you have and objection
5 you can --

6 (Interruption by the reporter.)

7 MR. DAVIS: I was saying it speaks for
8 itself. He has told you he has not read it, he has
9 told you he does not recall it and he told you if you
10 want to ask him questions about it he would like to
11 read it. Now otherwise, all you are going to do is
12 read a sentence and say, is it in there, and it's
13 clearly in there. If you want to take your time
14 doing it, fine. Dr. Teague, you can just say yes,
15 it's there.

16 MR. O'FALLON: Do you want to instruct him
17 on any other way you want him to answer these
18 questions?

19 MR. DAVIS: I'm not instructing him in any
20 way, Mr. O'Fallon.

21 BY MR. O'FALLON:

22 Q. Let's turn to the conclusion section.

23 A. I'd like to insist that I get about a half an
24 hour to read this.

25 MR. O'FALLON: Okay. We will go off the

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1 record, you take a half hour, you read that
2 document. If I need to be here through next week,
3 I'll be here through next week.

4 THE REPORTER: Off the record.

5 (Recess taken from 1:58 to 2:16 p.m.)

6 BY MR. O'FALLON:
7 Q. Have you now had the opportunity to review this
8 document, Dr. Teague?
9 A. Yes, I read the first, what, five pages, four
10 pages, I guess.
11 Q. And do you think that's sufficient for you to be
12 able to answer my questions from here on?
13 MR. DAVIS: Objection. Go ahead.
14 A. We will just have to see.
15 Q. I'd like you to turn to the conclusions section
16 on page 501001801.
17 A. Uh-huh.
18 Q. The first conclusion is that, quote, "It is
19 questionable whether nicotine should be promoted as
20 an ingredient in a substitute cigarette product,
21 without also mounting a strong support campaign in
22 nicotine's favor and defense"; correct?
23 A. That's what it says.
24 Q. So the results of the survey indicate that most
25 consumers assume nicotine is harmful to health;

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1 correct?
2 A. That what it see.
3 Q. "Since our target market for a cigarette
4 substitute would be former smokers and those who were
5 inclined to, but didn't start smoking (probably
6 because of the health controversy), it is doubtful
7 they would one product (cigarettes) only to accept
8 another (cigarette substitute) with the same
9 'harmful' ingredient"; correct?
10 A. Yes, sir.
11 Q. Is this one of the reasons why R.J. Reynolds
12 also did not promote nicotine and deliberately
13 downplayed nicotine in its advertising?
14 MR. DAVIS: Objection.
15 MR. McELVEEN: Objection --
16 A. I don't speak for R.J. Reynolds.
17 (Interruption by the reporter.)
18 MR. McELVEEN: Objection on the grounds
19 already stated.
20 (Interruption by the reporter.)
21 A. Who's answer, mine? Well, my answer I think
22 I've already said. I don't speak for Reynolds.
23 Q. You wrote that Reynolds deliberately played down
24 the role of nicotine in cigarette smoke; correct?
25 A. I think we discussed that. I didn't say they

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1 played it down. I just said they didn't play it up,
2 you know. That's one of those could go either way.
3 Q. Let's go back to your document. Let's go back
4 to page 500915687. Do you have that in front of you?
5 A. Page 5?
6 Q. 5 -- Page 5, correct.
7 A. Yeah, okay.
8 Q. Okay. You state, quote, --
9 A. Where?
10 Q. I'm in the middle of the second paragraph.

11 A. Okay.
12 Q. You state, quote, "We have deliberately played
13 down the role of nicotine, hence the non-smoker has
14 little or no knowledge of what satisfactions it may
15 offer him, and no desire to try it." When you used
16 the word "we," who were you referring to?
17 A. I imagine the tobacco industry.
18 Q. So you include yourself as part of the tobacco
19 industry when you wrote this document; correct?
20 A. I worked for Reynolds. Sure.
21 Q. And you knew before you wrote this document that
22 consumers in fact considered nicotine harmful;
23 correct?
24 MR. McELVEEN: Objection, that's been asked
25 and answered.

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1 A. Say again. I'm sorry.
2 Q. And you knew before you wrote this sentence on
3 page 5 of your report entitled "RESEARCH PLANNING
4 MEMORANDUM ON THE NATURE OF TOBACCO BUSINESS AND THE
5 CRUCIAL ROLE OF NICOTINE THEREIN," Exhibit 1057, that
6 consumers considered nicotine harmful.
7 A. Some consumers.
8 Q. Consumers that responded to the survey that was
9 conducted in 1970, the results of which were sent to
10 you.
11 A. Well actually, I don't recall ever seeing this
12 before or getting it. My name's on it so I -- I
13 don't contest the fact that it must have come
14 through, but when you say consumers did this, that
15 and the other, you are talking about a portion of
16 consumers.
17 Q. Well certainly you didn't go out and survey all
18 consumers; right?
19 A. I didn't survey any.
20 Q. Well, you requested the survey; correct?
21 A. I don't recall requesting it, I really don't.
22 Q. But the document says you did; right?
23 A. It says so but --
24 MR. McELVEEN: Can I interrupt? We are not
25 getting the transcript -- the transcript is not

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1 coming over the tape -- I mean, not coming over the
2 computers. I'm not sure why that is or if that
3 signals any problem here.
4 (Discussion off the stenographic record.)
5 (Interruption by the reporter.)
6 (Record read at page 146, lines 19-21.)
7 BY MR. O'FALLON:
8 Q. Dr. Teague -- Why don't we go on the record.
9 Dr. Teague, do you have any additional answer
10 other than the one that's been read back to you, to
11 my question?
12 A. Which one was that? I don't have one of those
13 gizmos to read on.
14 Q. My question was: You would agree that the
15 document says that you requested this consumer

16 survey; correct?
17 A. The document says requested by colon C. E.
18 Teague, Jr., but I say I have no recollection of
19 requesting it or receiving it or reading it.
20 Q. And one of your real concerns about the tobacco
21 industry's unwillingness to promote nicotine was that
22 the non-smoker wouldn't know about the effects of
23 nicotine that he could expect to receive if he
24 started smoking; correct?
25 A. No, sir.

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1 Q. Let's go back to the document, your first report
2 at page 5 again.
3 A. Uh-huh, uh-huh.
4 Q. After you state, quote, "We have deliberately
5 played down the role of nicotine, hence the
6 non-smoker has little or no knowledge of what
7 satisfactions it may offer him, and no desire to
8 try. Instead, we somehow must convince him with
9 wholly irrational reasons that he should try smoking,
10 in the hope that he will for himself then discover
11 the real 'satisfactions' obtainable"; correct?
12 A. That's what it says.
13 Q. And those wholly irrational means would be your
14 ongoing advertising; correct?

15 MR. McELVEEN: Objection.

16 A. What?
17 Q. Well, you say you are trying to convince him by
18 irrational -- by wholly irrational reasons he should
19 try smoking, so how exactly do you go about doing
20 that?
21 A. Now what was the question? I found the line.
22 Q. Well, you say that we must somehow "convince him
23 with wholly irrational reasons that he should try
24 smoking." How exactly did RJR go about that task?
25 A. I don't know that RJR went about that task at

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1 all. I don't think I said they did.
2 Q. You then go on to say, "And of course, in the
3 present advertising climate, our opportunities to
4 talk to the pre-smoker are increasingly limited, and
5 therefore, increasingly ineffective." When you use
6 the word "presmoker" you are really talking
7 predominantly about children; correct?
8 A. No, sir. Absolutely not. If you read some of
9 the other documents, I make it very clear that I'm
10 talking to young adults, 18 through whatever, 18
11 being the legal -- those of us who got shot up in
12 Europe, we felt like we were entitled to be citizens
13 at 18 and vote and do other things. That was -- And
14 I think one of my documents said --
15 Q. Well, then --
16 A. -- that.
17 Q. -- why are you increasingly limited to talk to
18 the presmoker?
19 A. I don't know.
20 Q. You wrote it.

21 A. Well, that has to do with -- I think cigarettes,
22 tobacco advertising was taken off the air and limited
23 in this, that and the other so I'd say that's
24 increasingly limited.

25 Q. You state, "Would it not be better, in the long
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1 run, to identify in our own minds and in the minds of
2 our consumers what we are really selling, i.e.,
3 nicotine satisfaction"; correct?

4 A. Yes.

5 Q. You thought that would be the better approach?

6 A. That's what this says.

7 Q. Okay. You then state that this would enable us
8 to speak directly of the virtues of our product to
9 the confirmed smoker, and would educate the
10 pre-smoker, perhaps indirectly but effectively, in
11 what we have to offer and what we would be expected
12 to do for him; correct?

13 A. That's what it says.

14 Q. Let's look on page 500915688, page 6 of the
15 document.

16 A. This?

17 Q. I'm referring to this document. I'm referring
18 to Exhibit 1057.

19 A. Okay. Page 6, where?

20 Q. Let's look at the middle of the first
21 paragraph. What you state there is that "If, as
22 proposed above, nicotine is the sine qua non of
23 smoking and if we meekly accept the obligations of
24 our critics and move toward reduction or elimination
25 of nicotine from our products, then we shall

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1 eventually liquidate our business"; is that correct?

2 A. That's what it says.

3 Q. In other words, you are stating that nicotine is
4 absolutely essential to RJR's business and their
5 remaining in business; correct?

6 A. No. I'm saying "if." That sentence starts with
7 an "if." That means it's a conditional statement in
8 logic; right? It means it may or may not be true. I
9 don't know.

10 Q. You then state, "If we intend to remain in
11 business and our business is the manufacture and sale
12 of dosage forms of nicotine, then at some point we
13 must take a stand"; correct?

14 A. That again is what it says, but I would point
15 out that if we intend to remain in business and if --
16 the if carries to the second phrase, if our business
17 is the manufacture and sale of dosage forms of
18 nicotine, that's an if-then logic system that I'm
19 sorry you don't understand that. I'm trying to help.

20 Q. Uh-huh. You then go on to state, quote, "We
21 should know more, rather than less, than our critics
22 about the physiologic effects of nicotine, and we
23 should in all ways scientifically validate and speak
24 to the beneficial effects and 'satisfaction' derived
25 from some use of nicotine. Essentially all

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1 commercial drugs give rise to some undesirable side
2 effects, but we continue to use them with great
3 benefit to humanity because of their overriding
4 beneficial effects." At some point R.J. Reynolds did
5 undertake to study in more detail the physiological
6 effects of nicotine; correct?
7 A. I don't recall that.
8 Q. Do you recall a Dr. Robinson, I believe his name
9 is?
10 A. Robinson?
11 Q. Yes.
12 A. No. Did he work at Reynolds?
13 Q. You don't recall him at all?
14 A. At the moment I don't. I'm not real good at
15 names.
16 Q. So apparently R.J. Reynolds didn't take your
17 advice, at least as far as you know, that you should
18 learn more about the physiological effects of
19 nicotine?
20 A. I said I don't know if we did or didn't. I
21 don't think I was involved. That would not be in my
22 field of even minor competence, I think.
23 Q. Well at the time you wouldn't actually be
24 undertaking any of the research since at the time you
25 were in management, you were the assistant research

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1 director. Did you know, did you ever direct or did
2 anybody ever direct additional research into nicotine
3 and it's physiological effects, to the best of your
4 knowledge?
5 MR. DAVIS: Objection. Go ahead.
6 A. Did you say "ever"?
7 Q. Yes, to the best of your knowledge?
8 A. Does that go right to today?
9 Q. I said "to the best of your knowledge."
10 A. No. I mean, what is your time period?
11 Q. During the time you were at Reynolds.
12 A. I believe there was some work done on nicotine
13 but I don't know what it was, I don't know what the
14 conclusions were, I don't believe I was involved in
15 that.
16 Q. Let's go to the back of this document, on page 8
17 of the document.
18 A. Six, 7, 8. Okay. Does that start "In the
19 present real situation"?
20 Q. Well actually I'm going to refer you down to the
21 part where it starts "INDICATED RESEARCH DEPARTMENT
22 ACTIVITIES AND APPROACHES."
23 A. Okay, sure.
24 Q. You state: "If the above is a valid line of
25 reasoning, then our long-term future courses of

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1 action should be as follows: 1. Recognize the key

2 role of nicotine in consumer satisfaction, and design
3 and promote our products with this in mind." Was
4 that ever done?
5 A. I don't recall anything specifically being done
6 on that.
7 Q. Number 2, "More precisely define the minimum
8 amount of nicotine required for 'satisfaction' in
9 terms of dose levels, dose frequency, dosage form,
10 and the like." Was some of that work done?
11 A. I don't recall any. I don't know if there was
12 or wasn't. I just don't know.
13 Q. Three, "Sponsor in-depth studies on the
14 physiological, psychological and other effects of
15 nicotine, aimed at demonstrating the beneficial
16 effects of nicotine and at disproving allegations
17 that nicotine produces major adverse effects." Was
18 that ever done?
19 A. Again I don't know. Nicotine is sold over the
20 counter now and in a number of forms, so I guess it
21 can't be too horrible.
22 Q. My question is: Did R.J. Reynolds ever study
23 it?
24 A. I don't -- My answer was: I don't recall
25 whether we did or not. If we did, I sure don't

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1 remember it but --
2 Q. Wouldn't you think that a responsible company
3 that's selling a drug such as nicotine should know
4 the effects of that drug on the body?
5 MR. DAVIS: Objection.
6 MR. McELVEEN: Objection. That
7 mischaracterizes his testimony and it calls for
8 speculation on his part.
9 A. That's an opinion. How would I know?
10 Q. You don't know one way or the other?
11 A. I don't care to offer an opinion on it, I really
12 don't have a well-formed opinion on it. If you want
13 me to think about it for a while --
14 Q. Did you ever have a well-formed opinion on that
15 issue?
16 Did you ever have a well-formed opinion on that
17 issue?
18 A. Well, if I did, I don't remember it. I possibly
19 did.
20 Q. Number 5 says, "Study means for enhancing
21 nicotine satisfaction via synergistics, alteration of
22 pH, or other means, to minimize dose level and
23 maximize desired effects."
24 A. Whoa.
25 Q. Number 5, on page 9.

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1 A. On the next page?
2 Q. Yes, number 5 on page 9. Are you with me?
3 A. Sure.
4 Q. It says, "Study means for enhancing nicotine
5 satisfaction via synergistics, alteration of pH, or
6 other means, to minimize dose level and maximize

7 desired effects." Some that work was in fact done;
8 correct?
9 A. I think we looked at that at some point. I
10 think it was kind of a dry well.
11 Q. You looked in some detail at pH and its effect
12 on nicotine; correct?
13 A. I did?
14 Q. Your department did, and you did as well.
15 A. I think there was a theory at one time in all
16 this. We pulled together some stuff and talked about
17 it, later turned out to not be.
18 Q. It was a pretty large undertaking in fact,
19 wasn't it, sir?
20 A. I don't think so.
21 Q. It involved in part the use of ammonia to
22 increase pH of tobacco; correct?
23 A. That sounds kind of familiar.
24 Q. And the use of ammonia to increase the pH also
25 increased the free nicotine in the tobacco smoke;

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1 correct?
2 A. Well, there was, as I recall -- this is a long
3 time ago -- I think there was some theory about free
4 nicotine versus mal nicotine and stuff but I -- I'm
5 not sure it was very scientifically rigorous.
6 Q. And eventually you actually altered your
7 products by addition of ammonia in part to obtain
8 increased pH and increased amount of effect of
9 nicotine; correct?
10 MR. DAVIS: Objection.
11 MR. McELVEEN: Objection.
12 A. Not that I know of. We used ammonia to remove
13 nicotine.
14 Q. And it's your testimony never did you use
15 ammonia to increase pH?
16 A. "Never" is a word I don't use.
17 Q. Well, what's your testimony, sir?
18 A. I don't know. What was the question?
19 Q. The question was: Is it your testimony that
20 R.J. Reynolds never used ammonia to increase pH?
21 A. I have no idea.
22 Q. Do you recall writing a paper entitled
23 "IMPLICATIONS AND ACTIVITIES ARISING FROM
24 CORRELATION OF SMOKE pH WITH NICOTINE IMPACT, OTHER
25 SMOKE QUALITIES, AND CIGARETTE SALES"?

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1 A. Not by that title. If you let me look at it, I
2 could probably tell you.
3 Q. I'm going to show you a document that's been
4 previously marked as Deposition Exhibit 1058. It is
5 a document that has been Bates numbered 511223463
6 through 3484. Do you recognize this document?
7 A. Yes, I believe this is a -- something that I
8 pulled together. I think it had a bunch of -- yeah,
9 there they are.
10 Q. This is a document written by you; correct?
11 A. Well, I didn't write this.

12 Q. You attached that to the document, didn't you,
13 sir?

14 MR. McELVEEN: Could we identify for the
15 record what he is talking about? He said "attached
16 this" and I'm not sure what --

17 MR. O'FALLON: I think he has just
18 referenced Bates number 511223471 or 3472.

19 MR. McELVEEN: Okay. If that's right,
20 that's fine.

21 Q. Why don't we just save a little time and turn to
22 Bates number 511223469, page 5 of the document.

23 A. The last page with the signature line?

24 Q. Right. It states Claude E. Teague, Jr.;
25 correct?

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1 A. I don't see a "junior."

2 Q. In type --

3 A. Yeah, yeah.

4 Q. Then you signed the document; correct?

5 A. Sure, sure, but I didn't sign it junior.

6 Q. Okay. It's not your practice to sign it with
7 the junior?

8 A. I try to because there are three of us with the
9 same name.

10 Q. But you don't always?

11 A. I -- That is my signature. No problem with
12 that.

13 Q. Okay. And this is a document that you wrote in
14 the ordinary course of business at R.J. Reynolds;
15 correct?

16 A. I'm not sure I understand what you mean by the
17 "ordinary course of business."

18 Q. You wrote this?

19 A. Is that a lawyer's phrase or something?

20 Q. You wrote this document as part of your --

21 A. My work.

22 Q. -- duties at R.J. Reynolds; correct?

23 A. Yeah, it was my work, some of my work. Sure.

24 Q. And apparently this was a document that was kept
25 by R.J. Reynolds; correct?

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1 A. I suppose I saved it, you got it.

2 Q. It's marked "SECRET." Did you mark it secret?

3 A. I don't think anybody did. It's not signed --
4 It's not initialed. I mean, it was stamped but not
5 initialed, apparently.

6 Q. Does it have to be initialed?

7 A. Well, we danced around that one the other day.
8 I think technically it was supposed to be, says "By,"
9 is supposed to be initialed by somebody, whoever
10 generates it but --

11 Q. What does "No. 15" mean?

12 A. I was just going to ask you. I don't remember.

13 Q. Sir, I'm at somewhat of a disadvantage since I
14 was never an RJR employee. Do you recall what it
15 means?

16 A. Oh, I bet I know. It's stamp number 15.

17 Probably each person that had a stamp had -- I don't
18 know, if you look through some other documents you
19 may find a 16 or 12 or -- that's a guess, but that's
20 reasonable.

21 Q. Was number 15 your stamp?

22 A. I don't recall.

23 Q. Part of the reason you were doing this
24 particular project was that R.J. Reynolds was
25 concerned about their increase of sales of Marlboro

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1 and Kool; correct?

2 THE WITNESS: Are you going to object? I
3 will.

4 A. I don't speak for R.J. Reynolds.

5 Q. Well, sir, we can dance this dance as long as
6 you would like. You understand that a corporation
7 acts through its employees; correct?

8 A. Tries to.

9 Q. You were one of its employees; correct?

10 A. Yes, sir.

11 Q. Presumably some other employee and/or you
12 decided that this issue needed to be studied;
13 correct?

14 A. That's probably true.

15 Q. And when you did that you were doing it on
16 behalf of R.J. Reynolds; correct?

17 A. I was doing it? I don't think I did any of the
18 study. I think I pulled it together for
19 presentation.

20 Q. And you pulled it together as an employee of
21 R.J. Reynolds for R.J. Reynolds?

22 A. We have already said I did it as an employee,
23 right.

24 Q. Okay.

25 A. But being an employee, I'd like to make the

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1 distinction, doesn't mean that I speak for R.J.
2 Reynolds. That will save us a lot of time if we can
3 make that distinction, I think.

4 Q. In your introduction on the first page of this
5 document, under "IMPLICATIONS AND ACTIVITIES ARISING
6 FROM CORRELATION OF SMOKE pH WITH NICOTINE IMPACT,
7 OTHER SMOKE QUALITIES AND CIGARETTE SALES," you
8 state, "This year the continuing, vigorous sales
9 growth of various competitive cigarette brands,
10 especially Marlboro and Kool, prompted an intensive
11 study of physical and chemical properties of those
12 brands as compared with our brands"; correct?

13 A. That's what it says.

14 Q. This was aimed at identifying and significantly
15 -- any significant property differences which might
16 correlate with market performance, measuring and
17 monitoring such differences, and learning how such
18 differences are achieved, permitting us to achieve
19 similar effects in our existing or new brands if
20 desired; correct?

21 A. That's what it says.

22 Q. This wasn't just a small undertaking; correct?
23 A. What's your definition of "small"?
24 Q. Well, there were more than --
25 A. It's more than a one-man show. I don't think
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1 the whole department turned to on it. What is it you
2 want?
3 Q. There were other departments involved in
4 research; correct?
5 A. I'd have to read it. I --
6 Q. Well I'm asking you right now for your
7 recollection.
8 A. I don't recall who was involved in it and who
9 wasn't, to tell you the truth.
10 Q. What you discovered was that the most
11 significant difference between your brands and the
12 Philip Morris brands and Kool were in the area of
13 smoke pH; correct?
14 A. Where do you see that?
15 Q. Why don't you look under "HISTORICAL DATA,
16 TRENDS AND BRAND COMPARISONS." It says, "In seeking
17 out significant property differences, we gathered
18 available historical and current data on our brands
19 and competitive brands, and made comparisons"; right?
20 A. Right.
21 Q. "It soon became apparent that in recent years,
22 corresponding to recent sales performance, the most
23 significant difference between our brands and Philip
24 Morris brands and Kool has been in the area of smoke
25 pH"; correct?

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1 A. That's what it says.
2 Q. You then go on on the next page, page 2, to
3 explain the significance of smoke pH?
4 A. Do you want me to finish reading this page? Are
5 you going to come back to this or what? I haven't
6 seen this probably since it was written.
7 Q. Let's go on to page 2. Your attorneys are here,
8 if they want to ask you questions when I'm done, they
9 can -- they are more than free to do so.
10 A. I just thought if I need to go somewhere to read
11 it right quick it might expedite things, but if you
12 don't think so we will try it this way.
13 Q. Is this one of the documents that you reviewed
14 prior to this deposition, sir?
15 A. No, sir. I don't think I've seen this one since
16 it was written, that I can recall.
17 Q. Under --
18 A. Somebody may have waved the cover sheet at me,
19 said this is -- I don't know.
20 Q. Do they ever give you those documents that they
21 showed you to take home or did you have to look at
22 them in the offices?
23 A. Some of them.
24 Q. Was this one of the documents you were given to
25 take home?

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1 A. No, I don't believe so. If it was, I didn't
2 read it.
3 Q. Again, the lawyers that gave you those documents
4 were lawyers for R.J. Reynolds; correct?
5 MR. DAVIS: Objection.
6 A. I think my lawyer gave them to me.
7 Q. And he got them from lawyers for R.J. Reynolds?
8 A. I don't know.
9 Q. Under section III, "SMOKE pH AND 'FREE'
10 NICOTINE," you go through and explain the
11 significance of smoke pH on free nicotine; correct?
12 A. Let me read it.
13 Okay. I've scanned that section.
14 Q. You start that section out with a concept we
15 have seen in your previous document when you state,
16 quote, "In essence, a cigarette is a system for
17 delivery of nicotine to the smoker in attractive,
18 useful form"; correct?
19 A. You could say the same. It's a system for
20 delivery of carbon dioxide, of water, of many other
21 things. This is one -- one aspect.
22 Q. But that's not what you say here. You say it's
23 a system for the delivery of nicotine; correct?
24 A. Yeah.
25 Q. Presumably not a whole lot of people would buy a

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1 cigarette if they knew it was just a system for the
2 delivery of carbon monoxide, would they, or
3 formaldehyde, which you also find in smoke.
4 Presumably people don't want to breathe in the
5 formaldehyde, do they?
6 A. I don't know.
7 Q. Probably wouldn't sell a whole lot of cigarettes
8 if you advertise it as a system for the delivery of
9 formaldehyde, would you?
10 MR. McELVEEN: Objection, calls for
11 speculation on the part of the witness.
12 (Interruption by the reporter.)
13 Q. You then go on to state that, quote, at normal,
14 end quote, smoke pH, at or below 6, essentially all
15 of the smoke nicotine is chemically combined with
16 acidic substances, hence is non-volatile and
17 relatively slowly absorbed by the smoker; correct?
18 A. That's what it says. I no longer believe that,
19 but that's what it says.
20 Q. You then go on to state, quote, as the smoke pH
21 increases above about 6, an increasing proportion of
22 the total smoke nicotine occurs in, quote, free, end
23 quote, form which is volatile, rapidly absorbed by
24 the smoker, and believed to be instantly perceived as
25 nicotine, quote, kick, end quote; correct?

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1 A. That's what it says. Again, I don't believe
2 that at this time but at that time I think I did.

3 Q. When did you change that opinion?
4 A. I don't remember. I just remember after all was
5 said and done none of this was right or useful or
6 whatever.
7 Q. When did you write that down?
8 A. I don't know.
9 Q. Did you ever write that down?
10 A. I couldn't tell you whether I did or not.
11 Q. And you left the research department in 1975;
12 correct?
13 A. Yes, sir.
14 Q. Did you write it down before 1975?
15 A. I couldn't tell you.
16 Q. Did you decide this was all garbage before
17 1975?
18 MR. DAVIS: Objection.
19 A. I never said it was all garbage. I just said I
20 think we had it wrong.
21 Q. I know. I'm asking you when did you decide
22 that?
23 A. You said "garbage." I'm just correcting that.
24 Q. When did you decide it, sir?
25 A. I couldn't tell.

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1 Q. Why don't you give me your best approximation.
2 A. If I don't remember, how could I give you an
3 approximation?
4 Q. It's important, sir, that I know when that is
5 and I think it's important that the jury know when
6 that is if that's going to be your testimony here
7 under oath today.
8 A. All my testimony is under oath, I thought.
9 Well, you can narrow it down. This was written
10 when? Is there a date on this? This doesn't have a
11 date on it.
12 Q. You're correct, it doesn't.
13 A. Strange.
14 Q. Do you know when it was written?
15 A. No, sir. It was written before 1975, obviously,
16 but I couldn't tell you when it was written. If I
17 knew, I'd tell you. I just don't know.
18 Q. You then put out a chart, chart number VIII,
19 that shows how proportion of free nicotine increases
20 as pH goes higher; correct?
21 A. Chart. What page are you on now, sir?
22 Q. I'm reading the next sentence right after what I
23 just read, sir. It's the very last paragraph of the
24 -- very last sentence of the first paragraph.
25 A. You are reading. I thought you were referring

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1 to the chart. Excuse me.
2 Q. We are going to refer to the chart, but that's
3 what you state about the chart; correct?
4 A. "Chart VIII shows how proportion of 'free'
5 nicotine increases as pH goes higher." Okay. That's
6 what it says.
7 Q. Okay. Let's look at your Chart No. VIII. It's

8 on page 511223479. You have it there in front of
9 you, don't you?
10 What this shows again is how as pH increases the
11 free nicotine that's available to the smoker also
12 increases; correct?
13 A. I think this is part of what later came to
14 believe was not correct.
15 Q. Well you wrote this in -- in whatever time
16 period this was, sometime before 1975; correct? And
17 you never wrote a memo that said this was wrong;
18 correct?
19 A. I don't know. I don't know whether I did or
20 not. I very well may have. You don't have it?
21 Q. No. And I've looked at most of your documents.
22 A. Well, I -- I don't know. It was -- I think it
23 was -- we had a happy theory here but it just didn't
24 pan out to be useful or to be factual. I don't know
25 how much you know about pH but it -- measurement of

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1 smoke pH in and of itself is a little bit
2 questionable because pH refers to aqueous solutions.
3 Q. You don't state anywhere in this memo the
4 measurement of pH is questionable, do you, sir?
5 A. I don't know. I haven't read it.
6 Q. In fact, what you show is that as pH increases
7 and as free nicotine increases --
8 A. Uh-huh.
9 Q. -- you get more rapid nicotine absorption;
10 correct?
11 A. Well, that's not shown. That's stated, area of
12 rapid nicotine absorption.
13 Q. Right. And This is a document, this is a chart
14 that you yourself put together; right?
15 A. I didn't do the chart, no.
16 Q. You didn't do this?
17 A. No.
18 Q. Did you direct somebody to do that?
19 A. I don't know whether I directed them or they
20 gave it to me. Like I say, I took work and
21 correlated it into a report for presentation and --
22 Q. Presentation to who?
23 A. I don't remember.
24 Q. Upper management?
25 A. I don't recall. I think -- I think it probably

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1 was some -- some marketing people and some research
2 people, maybe some development people. I --
3 Q. Do you think you ever gave this to upper
4 management?
5 A. To upper management?
6 Q. Yes.
7 A. The presentation? I would not because it wasn't
8 right.
9 Q. Well, you made a lot of --
10 A. I may have. I just -- I think I gave it a time
11 or two and that's about all I can remember about it.
12 Q. And again you can't -- you can't testify as you

13 sit here today when it was you decided this wasn't
14 right; correct?
15 A. I assume it was before I left research, which
16 would be probably -- No, I can't tell you when.
17 Q. But you were going to say you think it's before
18 1975?
19 A. I didn't say that. I started to say but -- I
20 really -- if I don't know, I don't know.
21 Q. You then state that Marlboro and Kool deliver
22 about the same amounts of total smoke nicotine as do
23 your comparable brands. However, Marlboro smoke is
24 typically at pH 6.8 to 7.3, and Kool smoke is
25 typically at 6.4 to 6.6, as compared to Winston smoke

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1 at pH 5.8 to 6.0 and Salem smoke at 6.0 to 6.2;
2 correct?
3 A. That's what it says.
4 Q. So "Thus Marlboro and Kool smokes contain more,
5 quote, free, end quote, nicotine than our comparable
6 brands, hence would be expected to show more
7 instantaneous nicotine, quote, kick, end quote, than
8 our brands"; correct?
9 A. That's what it says.
10 Q. You then go on to state, as a result of this
11 higher smoke pH, the current Marlboro, despite a
12 two-thirds reduction in tar and nicotine over the
13 years, calculates to have essentially the same amount
14 of free nicotine as its smoke -- in its smoke as did
15 the early Winston; correct?
16 A. That's what this says.
17 Q. In other words, even though Philip Morris has
18 decreased the amount of nicotine that it reports by
19 FTC methods, they actually increased or held constant
20 the amount of free nicotine they are delivering to
21 the smoker; correct?
22 A. That's not a conclusion I would draw, especially
23 now. This says "calculates to have the same." I
24 think later we found those calculations were very
25 misleading at best. So, you know, I -- the whole

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1 concept of free nicotine, especially when I think the
2 measured component of mainstream smoke is carbon
3 dioxide, which you said you didn't think would sell
4 cigarettes, and moisture, and that gives you what --
5 carbonic acid, which would tie up nicotine regardless
6 of whatever -- the whole thing is complicated is all
7 I'm saying.
8 Q. And of course it's no more complicated today
9 than it was back when you wrote this memo, is it,
10 sir?
11 A. No more -- No more com -- What, the smoke pH?
12 Q. The whole concept.
13 A. I don't know. I haven't kept up. I've been
14 out.
15 Q. You haven't really done any bench research, you
16 haven't really been involved in nicotine research
17 since 1975; right?

18 MR. McELVEEN: Objection. I think that
19 mischaracterizes his prior testimony.
20 A. Well, I don't think I was involved in 1975.
21 Bench work, I didn't work in the bench in '75.
22 Q. Just generally. You weren't directing nicotine
23 research after 1975 or involved in any way in
24 nicotine research after 1975; correct?

25 MR. DAVIS: Objection.
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1 A. That's a loose, broad thing. I couldn't give
2 you an answer to that.
3 Q. Well, if you can't, who can? Do you consider
4 this document, do you consider this pH work to be
5 research that involves nicotine?
6 A. Sure.
7 Q. Okay. Were you involved in work like this, work
8 involving smoke pH or free nicotine at any time after
9 1975 once you left the research department?
10 A. Was I personally involved in doing it?
11 Q. Or managing it or directing it. I mean, here
12 you are basically collating and directing research;
13 correct?
14 A. Yeah, I guess so. Excuse me. I was trying to
15 think back. I don't -- After I left the research
16 department in '75, I can't think of any occasion I
17 would have had to be involved in this kind of thing.
18 Q. Okay. So you don't have any hands-on knowledge
19 of exactly what R.J. Reynolds did as far as nicotine
20 research after 1975?
21 A. Hands on?
22 Q. Direct, reporting responsibility.
23 A. I don't think, no, not that I recall.
24 Q. And do you believe at some time prior to 1975
25 you wrote a memo stating that everything you said in

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1 this memo was incorrect?
2 A. I said --
3 MR. DAVIS: Objection.
4 A. I said I didn't know.
5 Q. Let's go back to this notion of where Marlboro
6 was with its free nicotine. You said over this same
7 period of time, this time in which Marlboro held its
8 free nicotine about the same as the early Winston --
9 A. Where are we?
10 Q. I'm at the third paragraph.
11 A. Okay.
12 Q. You say, quote --
13 A. "Over the same period" --
14 Q. -- "Over the same period, with some reduction in
15 smoke pH and about two-thirds reductions in smoke
16 'tar' and nicotine, the calculated amount of quote,
17 free nicotine, end quote, in WINSTON smoke has
18 decreased by about two-thirds. Thus, currently the
19 calculated amount of 'free' nicotine in Marlboro
20 smoke is almost three times the amount in WINSTON
21 smoke"; correct?
22 A. That's what it says.

23 Q. Okay. You then go on in the next section
24 entitled "SMOKE pH AND OTHER SMOKE QUALITIES" to say,
25 "In addition to enhancing nicotine kick, increasing
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1 the pH (increasing alkalinity) of smoke above about 6
2 causes other changes, particularly when the increase
3 in smoke pH is achieved by adding ammonia to the
4 blend"; correct?
5 A. That's what it says.
6 Q. You say that, "As smoke pH increases, in
7 general, stemmy taste, mouth irritation, flue-cured
8 flavor and Turkish flavor are diminished, and burley
9 flavor and character are enhanced"; correct?
10 A. What am I saying -- I'm saying what's -- What
11 you're reading you're reading correctly. I'm not
12 saying what it says is correct.
13 Q. Well you thought it was correct when you wrote
14 it, didn't you?
15 A. Probably at that time. It was -- It was a
16 theory. The whole thing was a theory but you know I
17 was --
18 Q. You don't say anywhere in here this is just a
19 theory, do you, sir?
20 A. I think somewhere I said we were searching for a
21 possible correlations and stuff. In my mind, it was
22 not proven.
23 Q. You don't say that anywhere in this memo, do
24 you?
25 A. I don't know whether I do or not. You haven't

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1 let me read the memo. You have been hopping around.
2 I don't know what it says on that particular point.
3 Q. Well pretty soon we are probably going to take a
4 break because you will need one, and at that break
5 why don't you take a look through --
6 A. It wouldn't need a break if I had to read.
7 Q. Well, presumably part of the reason we are
8 taking a break, sir, and I don't mean to be
9 derogatory at all, so you can get up --
10 A. I'm feeble. I'll say it.
11 Q. You need to get up, you need to walk around.
12 A. Right.
13 Q. During that break I'd ask you to maybe take a
14 look at this memo and you tell me whether anywhere in
15 here you state that this is just a theory. Okay?
16 A. Well, you're asking me of my recollection and my
17 recollection is vaguely that this was theoretical and
18 I think the theory, maybe "theory" doesn't mean the
19 same to you, the premise or something, is there are
20 differences and this appeared to be one and we
21 pursued it and later for whatever reason it turned
22 out not to be a useful concept that we are putting
23 forth here, conclusion.
24 Q. Under "SMOKE pH AND OTHER SMOKE QUALITIES," we
25 talked about how you can increase -- Strike that.

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1 Let's go back.
2 Ammonia also makes the smoke taste better,
3 doesn't it, sir?
4 A. Taste better?
5 Q. Right.
6 A. Where do you see that?
7 Q. I'm asking. Does it or doesn't it?
8 A. I don't know. Depends on what smoke and what
9 amount of ammonia, what tobacco. There are a lot of
10 variables floating there.
11 Q. Was it generally understood by you at R.J.
12 Reynolds that addition of ammonia to tobacco,
13 especially reconstituted tobacco, would result in
14 what was perceived by the smoker as a better tasting
15 smoke?
16 MR. DAVIS: Objection.
17 A. I don't know what R.J. Reynolds thought. My
18 personal recollection is that in some -- you are
19 talking -- You are talking about what, G-7 tobacco?
20 Q. G-7A, right. G-7A is the reconstituted tobacco
21 that contains ammonia; correct?
22 A. I don't remember that. Anyway, I -- it's my
23 belief, was then and is now, that if you add a small
24 amount of ammonia to -- to a tobacco who -- that
25 contains carbohydrates and whose smoke is irritating,

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1 that it reduces the irritancy.
2 Q. Makes for a smoother smoke?
3 A. Well, I'd say reduces the irritancy. Say it
4 that way. I mean, that's -- "Smooth" means a lot of
5 things. But if you smoke, if you rolled up some of
6 these documents and smoked them you know what burning
7 paper is, is highly irritating. If this had any
8 sugar in it and you added ammonia it would be less
9 irritating, I think. This chemically is pretty
10 sound, I think.
11 Q. One of the other conclusions you made in
12 reviewing the pH data and the free nicotine data for
13 Marlboro and Kool was that Philip Morris, and
14 presumably B&W, were deliberately controlling the
15 level of free nicotine; correct?
16 A. I don't know that that was a conclusion. That's
17 what the calculations seemed to show, but whether it
18 was deliberate or not, who knows. I don't know.
19 Q. Why don't you look --
20 Why don't you go back to the first page of this
21 document, the first full page, under Roman numeral
22 II, "HISTORIC DATA, TRENDS AND BRAND COMPARISONS."
23 A. Right.
24 Q. The third paragraph down, the middle of that
25 paragraph. You state, quote, "All evidence indicates

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1 that the relatively high smoke pH, parenthetical,
2 high alkalinity, end parenthetical, shown by
3 Marlboro, parenthetical, and other Philip Morris

4 brands, end parenthetical, and Kool is deliberate and
5 controlled"; correct?
6 A. That's what that says.
7 Q. So in other words you took a look at this
8 evidence and you concluded that Marlboro -- that
9 Philip Morris,, the maker of Marlboro, and B&W, the
10 maker of Kool, were deliberately controlling their
11 nicotine content and free nicotine delivery?
12 A. I think that was a wrong conclusion but I think
13 at the time that was a working hypothesis, anyway.
14 Q. You don't state there that it's a working
15 hypothesis, do you, sir?
16 A. No.
17 Q. You don't state that it's a theory. You state
18 it as a fact, don't you, sir?
19 A. I don't think so but --
20 Q. Why don't we look at --
21 MR. McELVEEN: When you have a chance, when
22 you are at a convenient breaking point, I myself
23 would like one.
24 MR. O'FALLON: Why don't we take a break.
25 (Recess taken from 3:05 to 3:21 p.m.)

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1 BY MR. O'FALLON:
2 Q. Dr. Teague, back to your document entitled
3 "IMPLICATIONS AND ACTIVITIES ARISING FROM
4 CORRELATION OF SMOKE pH WITH NICOTINE IMPACT, OTHER
5 SMOKE QUALITIES, AND CIGARETTE SALES" --
6 A. Uh-huh.
7 Q. -- would you look at Roman numeral V on page 3,
8 entitled "MARKETING CORRELATIONS AND IMPLICATIONS."
9 A. Three, Roman V, top of the page.
10 Q. In the very first paragraph you state, quote,
11 "Putting all this together, we see that Marlboro
12 (and other Philip Morris brands) as compared with
13 WINSTON, our other brands and most other brands on
14 the market shows: (1) higher smoke pH (higher
15 alkalinity), hence increased amounts of 'free'
16 nicotine in smoke, and higher immediate nicotine
17 'kick'...less mouth irritation, less stemmy taste
18 and less Turkish and flue-cured flavor,
19 and...increased burley flavor and character";
20 correct?
21 A. That's what it says.
22 Q. You then state that, quote, these differences,
23 in the second paragraph, you state, quote, "These
24 differences in nicotine impact and other smoke
25 qualities arising from smoke pH increases would be

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1 expected to give rise to differences in consumer
2 response, hence market performance"; correct?
3 A. Yeah, that's what it says.
4 Q. You then state, quote, "Our preliminary
5 correlations strongly suggest that this is the case
6 and that the vigorous, sustained growth in sales of
7 Marlboro (and other Philip Morris brands) and Kool
8 correlates closely with the increased smoke pH, hence

9 increased 'free' nicotine and nicotine impact of
10 those brands"; correct?
11 A. That's what it says.
12 Q. You also note at the last paragraph that
13 marketing research analysis has confirmed your
14 understanding; correct?
15 A. Let me -- this starts with "subsequent detailed
16 analysis."
17 Q. Correct.
18 A. Okay. You were reading that paragraph. I've
19 read it. The paragraph is --
20 Q. And what it says --
21 A. -- as read.
22 Q. -- is, quote, "Subsequent detailed analysis by
23 Marketing Research of our pH and, quote, free and
24 nicotine data along with the sales date and other
25 factors has confirmed the strongly positive

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1 correlation between 'free' nicotine in smoke
2 (determined by pH and total nicotine in smoke) and
3 market share performance"; correct?
4 A. You read it correctly.
5 Q. So research is looking at the correlation of pH
6 and sales, as is marketing; correct?
7 A. What we said was marketing research.
8 Q. Marketing research; correct?
9 A. I believe so.
10 Q. You then go in Roman numeral VI, "PRESENT RJR
11 BRAND ACTIVITY," you state, quote, "If our data,
12 correlations and conclusions are valid, then what has
13 emerged is a rather new type of cigarette,
14 represented by Marlboro and Kool, with high nicotine
15 'kick', burley flavor, mildness to the mouth, and
16 increased sensation to the throat, all largely the
17 result of higher smoke pH"; correct?
18 A. You read it correctly.
19 Q. On the next page, page 4, you state, quote,
20 "Currently, Research, Tobacco Development and
21 Marketing are collaborating on a series of tests
22 aimed at exploring the newly-identified area of the
23 market"; correct?
24 A. That's what it says. I thought it was marketing
25 research but I -- Okay. Marketing Research is a

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1 subset of marketing, I guess.
2 Q. Right.
3 A. That's where I was losing it.
4 Q. So not only is marketing research, but marketing
5 in general is looking at this issue as well?
6 A. That I don't know.
7 Q. You then go down in Roman numeral VII and talk
8 about, particularly what your department, the
9 research department has done in this effort; correct?
10 A. I -- Yeah, I think so.
11 Q. You state, quote, "As its part in this
12 collaborative effort, Research has: (1) collected,
13 correlated, interpreted and described to Management

14 data on smoke pH of various brands"; right?
15 A. Whoa. I'm not sure whether that means marketing
16 research or our research. They are both research and
17 they are both referred to as research so I --
18 Q. Well, you only talk about -- when you talk about
19 research in this memo, you are referring to your
20 department; correct? When you are talking about
21 marketing research, you refer to it as marketing
22 research, don't you?
23 A. That would be my normal -- I'm guessing that
24 that probably would be the way I would use it, but
25 marketing research people, they call themselves

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1 research and so I --
2 Q. But it's not them that's writing this, it's you;
3 correct?
4 A. I'm sure I wrote a lot of it. I may have just
5 collated it. But it's my document, I signed it.
6 Q. You signed it.
7 A. Okay.
8 Q. You take responsibility for it?
9 A. The buck stops here, captain.
10 Q. Okay.
11 A. Sorry about the left-handed absolute.
12 Q. Now, when you say "described to management," are
13 you talking about upper management there? Are you
14 talking about the president of the company and the
15 vice president of the company?
16 A. I have no idea.
17 Q. You then say that research developed and put
18 into routine use improved methods for measurements of
19 smoke pH; right?
20 A. Right. So that identifies it as the research
21 department --
22 Q. Right.
23 A. -- rather than marketing research. That clears
24 it up.
25 Q. Marketing research wouldn't do measurement of

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1 smoke pH; right?
2 A. I wouldn't think so.
3 Q. "(3) discovered and reproduced the additives and
4 procedures necessary to prepare the G-7 type of
5 material used to increase the smoke pH of Marlboro,"
6 and the G-7 type material is R.J. Reynolds'
7 reconstituted tobacco material; correct?
8 A. No. The material there was not at all like
9 ours.
10 Q. I understand that. But you're talking about a
11 G-7 type of material; right?
12 A. Well, it wasn't a G-7 type of material. What
13 Philip Morris using was not, as I understand it.
14 Q. Did you or did you not --
15 Did or did not the research department discover
16 and reproduce the additives and procedures necessary
17 to prepare the G-7 type of material used to increase
18 the smoke pH of Marlboro?

19 A. I don't think we could. If we -- It took
20 different equipment to make theirs and ours. I mean
21 you can --
22 Q. So that's an incorrect statement?
23 A. You can do a little bit on, you know,
24 laboratory, hand mixed stuff, but you certainly
25 couldn't --

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1 Q. So you put in your report an incorrect
2 statement?
3 A. I may have. It wouldn't be the first time, I'm
4 sure.
5 Q. And "(4) monitored, on a continuous basis, smoke
6 pH and related properties of Marlboro, other Philip
7 Morris brands, Kool, our own brands, and some other
8 competitive brands"; correct?
9 A. That's what it says, sure.
10 Q. Additionally, you note that "Research has
11 substantial work in progress on (1) determining how
12 smoke pH elevation and control are achieved in Kool,
13 (2) developing a method of measuring pH of pipe
14 smoke, (3) studying how smoke composition and other
15 things change as pH is changed, and (4) evaluating
16 various methods whereby smoke pH may be increased,
17 with emphasis on ammonia treatments of stem
18 materials"; correct?
19 A. That's what it says, sure.
20 Q. So it's your department that's focusing in on
21 adding ammonia to the stem materials; correct?
22 A. No. I -- I think develop, that was something
23 that the development department would have done. We
24 may have done some of the lab work but they would --
25 we didn't have any -- they were the people that did

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1 the G-7 research and stuff like that.
2 Q. And the stem materials you are referring to are
3 in fact RJR's reconstituted tobacco?
4 A. Not necessarily.
5 Q. That's where you use your stems, isn't it, sir?
6 A. No. That's one place, yeah.
7 Q. Okay.
8 A. But there are stems and there are stems and
9 there are G-7s and there are G-7s. Ammonia doesn't
10 work unless you have sugar there.
11 Q. And ultimately you add ammonia to the
12 reconstituted sheet, the G-7 sheet; correct?
13 A. You mean experimentally or --
14 Q. No, I mean into a product.
15 MR. McELVEEN: Objection. I think that
16 calls for conclusion outside of his area of
17 expertise.
18 A. I don't know.
19 Q. Now this is going to continue to be an intensive
20 effort. It's already been an intensive effort and
21 it's going to continue to be an intensive effort,
22 isn't it?
23 A. Well, this says a continuing collaborative

24 effort. I don't -- Doesn't say intensive there.
25 Q. Why don't you look at your very last sentence,
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1 why don't read that. Why don't you read that to us.
2 A. "We anticipate continued intensive effort in
3 this potentially fruitful area throughout 1974."
4 So --
5 Q. So it's been intense and you plan to have it
6 continued intensive effort; correct?
7 A. That's what this says, I think, yeah.
8 Throughout 1974, so that dates this report a little
9 bit.
10 Q. By the way, was it a practice of RJR or you not
11 to date your reports?
12 A. I guess it happened here.
13 MR. DAVIS: Objection.
14 Q. Now in addition to the work that you did in
15 pulling it together, you also had individual members
16 of the research department doing work on this,
17 looking at smoke pH data and also the sales trends?
18 MR. DAVIS: Objection.
19 A. I'm not sure I understand what you are asking
20 me.
21 Q. Do you remember John Woods and Gloria Harllee?
22 A. Harllee?
23 Q. Yeah.
24 A. Yes, I do.
25 Q. And they were two individuals from the chemical

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1 research division that were assigned to explore the
2 correlation between smoke pH data and sales trends;
3 correct?
4 A. Where are you?
5 Q. I'm asking if you remember that.
6 A. Probably remember it better if I could get at
7 what you are reading.
8 Q. Do you remember it independently?
9 A. Not really.
10 Q. Well then --
11 A. I remember the names of the people but I don't
12 remember --
13 Q. Then I'll refresh your recollection with what's
14 been marked as Plaintiffs' Exhibit 1059, a document
15 that's Bates stamp number 500606138 through 6153.
16 Do you recall this document?
17 A. No.
18 Q. You were one of the people copied on it;
19 correct?
20 A. I'll tell you in just a minute. Yes, sir, my
21 name is there on the distribution list.
22 Q. If you look at the first part of this document,
23 under the objective portion on the very first page it
24 says that "The object of this work was to compile all
25 available smoke pH data measured during the past

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1 years on competitive brand filter cigarettes and
2 attempt to correlate these data with cigarette sales
3 trends"; correct?
4 A. That's what it says.
5 Q. So this report appears to be part of this
6 research that you were talking about and summarized
7 in the previous report that we just looked at,
8 Deposition Exhibit 1059, correct, or 1058?
9 A. I don't know. Since we don't have a date on
10 that other report, it's hard to say. This was May
11 '73 and I -- I don't know what the chronological
12 order is.
13 Q. But again I think we talked about how this was
14 an intensive project and that part of this project
15 and part of the project that was done by research was
16 gathering the pH data and correlating it with sales
17 data; correct?
18 A. That was something that we did. When we did it,
19 I don't know. This may have been something that led
20 to something else. I just -- Like I say, I don't
21 remember ever seeing this document so I can't tell
22 you a lot about it.
23 Q. Under the summary portion it states that smoke
24 pH data for competitive brand filter cigarettes
25 measured since 1964 were compiled; correct?

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1 A. Yeah. You want me to tell you every time you
2 read something that you read it correctly; is that
3 what you are asking?
4 Q. That's what the document states and that's what
5 you believed happened; correct?
6 MR. McELVEEN: Objection.
7 A. I don't know if it happened to not. That's what
8 the document states.
9 Q. Well --
10 A. I didn't say I believed it.
11 Q. If you didn't think it happened or if you
12 thought it was somehow incorrect, you as the
13 assistant director of research would certainly notify
14 these people it was incorrect?
15 A. You assume that I read the document.
16 Q. It wasn't your practice to read documents sent
17 to you?
18 A. I scanned the documents. If I read every
19 document that was sent to me, I'd still be reading
20 them.
21 Q. You did a detailed report on this entire subject
22 matter and apparently reports were made to
23 management. Presumably you read the documents
24 relating to issues that you report to management
25 before you make those reports; correct?

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1 MR. DAVIS: Objection.
2 A. I don't know. I don't really know what you are
3 talking about, but go ahead.
4 Q. You didn't understand my question?

5 A. I'm sorry. I'm trying to read and listen to you
6 and think all in one. I don't do that trick well.
7 Let's go back. What was your question?
8 Q. My question was: Presumably you read documents
9 that are sent to you, especially documents that
10 relate to subject matters where you are one of the
11 primary moving forces behind that project; correct?
12 A. I believe --
13 MR. DAVIS: Objection. Go ahead.
14 A. I don't sit down and pore over them and read
15 them. I scan them. I had to scan them. If I tried
16 to read everything that came across my desk, there is
17 no way.
18 Q. Well you made certain statements in your
19 previous document that we looked at concerning the
20 sales trends and pH and presumably you would want to
21 at least understand that information before you put
22 it in a report yourself or pass it along to
23 management; correct?
24 A. We are not sure that this was written before
25 that report was done. We -- That report is not

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1 dated, as I recall.
2 Q. You recall correctly. And this may in fact have
3 been written --
4 A. Prior to this.
5 Q. -- prior to or after it. But in any event -- It
6 may have been written prior to it or after it. But
7 in any event, you were remaining one of the key
8 people on the project of pH; correct?
9 A. One among many. I think my majority role more
10 than anything was to pull stuff together and write
11 it. I was kind of a scribe around there.
12 Q. Do you recall John Woods and Gloria Harllee?
13 A. I know who they are.
14 Q. Were they good researchers?
15 A. As far as I know.
16 Q. Careful? Did good work?
17 A. I wouldn't want to do a performance review. I
18 just -- As far as I know, they were good people. If
19 they weren't, I guess we wouldn't have kept them
20 forever.
21 Q. And of course you were one of the people who
22 were their supervisors at this period of time; right?
23 A. No, I wasn't their supervisor.
24 Q. Well, you were the assistant director of
25 research. They would have ultimately reported

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1 through somebody else to you; correct?
2 A. Well, they had a group leader and a section head
3 and a -- a division head and eventually to me, but
4 with several hundred people, I sure wasn't going to
5 get involved in performance reviews unless there was
6 some question about it or some by exception.
7 Q. You don't recall anything like that happening
8 with these people; correct?
9 A. No, I don't.

10 Q. They say that the results of their studies show
11 that since 1964 the smoke pH for the Marlboro and
12 Kool cigarettes had been steadily increasing while
13 that for other brands studied has remained almost
14 constant; correct?

15 A. Where were you reading?

16 Q. I was reading from the middle of the summary,
17 first paragraph.

18 A. Yeah. Okay. If you want me to verify that what
19 you are reading is true, you will have to read it
20 again because I didn't -- I wasn't looking at it
21 then. I assume what you read is correct.

22 Q. It says, quote, "The results show that since
23 1964 the smoke pH for the Marlboro and Kool
24 cigarettes has been steadily increasing, while that
25 for the other brands studied has remained almost

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1 constant"; correct?

2 A. That's what it says.

3 Q. It says, "The FTC 'tar' and nicotine has
4 decreased for all brands studied at about the same
5 rate"; correct?

6 A. That's what it says.

7 Q. It says, "Thus, all the brands have about the
8 same FTC 'tar' and nicotine, but the Marlboro and
9 Kool are stronger due to higher smoke pH"; correct?

10 A. That's what it says.

11 Q. So in other words, the FTC tar and nicotine
12 numbers on the outside of Marlboro and Kool wouldn't
13 be necessarily accurate when it comes to the amount
14 of P -- amount of nicotine actually delivered;
15 correct?

16 A. Well, that's a large question. I don't -- I
17 don't think this -- may or may not.

18 Q. This would lend credence to that notion, though,
19 that the FTC numbers don't really tell the smoker
20 what they are getting; correct?

21 MR. McELVEEN: Objection.

22 A. I don't know what you mean by tell them what
23 they are getting.

24 Q. Well the purpose of the FTC tar and nicotine
25 numbers is to give the smoker some idea of the amount

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1 of tar and nicotine they are getting; correct?

2 A. No.

3 Q. That's not a purpose of those numbers?

4 A. It's a relative, it's a ranking. Everybody
5 smokes differently, different products differently,
6 number of puffs, different depth of inhalation, so
7 forth, so you can't tell how much they get.

8 Q. So it's a comparative ranking?

9 A. Yeah.

10 Q. If they were to look at the comparative rankings
11 of Winston and Marlboro, for instance, and if they
12 were to see the comparative rankings were the same,
13 in fact that would be misleading because in fact
14 Marlboro would be giving the a stronger smoke;

15 correct?
16 A. No.
17 MR. McELVEEN: Objection, use of the term
18 "stronger."
19 Q. That's what the document uses, doesn't it, the
20 word "stronger"?
21 A. Very strong correlation, is that where you are?
22 Q. How about thus, quote, all brands have about the
23 same tar and nicotine --
24 A. Let me get with you. "All the brands have about
25 the same FTC 'tar' and nicotine, but the Marlboro and
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1 Kool are stronger due to a higher smoke pH."
2 Stronger in what sense, I don't know. Stronger
3 flavor, stronger burley flavor. They certainly have
4 a stronger burley flavor.
5 Q. They go on to say, the results --
6 In the next paragraph, they go on to say, "The
7 results of these studies show that there is a very
8 strong positive correlation between smoke pH and
9 sales trends over the years studied"; correct?
10 A. That's what it says.
11 Q. It then states that, "A high pH smoke is strong
12 due to high concentrations of unbound, or free,
13 nicotine in the smoke"; correct?
14 A. That's what it says.
15 Q. So it would appear that when they are talking
16 about Marlboro and Kool being stronger, they are
17 talking about stronger due to a high concentration of
18 unbound or free nicotine in the smoke; correct?
19 MR. McELVEEN: I object. I think that's
20 calling for him to speculate on what somebody else
21 meant.
22 A. I don't know what they meant.
23 Q. Sir, you were sent this memo, you were
24 ultimately a supervisor of these people. Were you
25 confused when you got this memo?

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1 MR. DAVIS: Objection.
2 MR. McELVEEN: Misstates his testimony. I
3 don't think he recalled he got it.
4 A. I wasn't confused. I say I don't remember
5 reading it so it's hard for me to tell you what my
6 state of mind was.
7 Q. You were wanting to testify that stronger could
8 mean anything, and in the context of this memo, based
9 on the sentences I just read you, it would appear
10 that stronger is talking about the higher
11 concentration of unbound or free nicotine in the
12 smoke; correct?
13 MR. DAVIS: Objection.
14 MR. McELVEEN: Same objection as before.
15 A. Right.
16 Q. As a matter of fact --
17 A. Are you waiting on me or am I waiting on you?
18 Q. Yeah.
19 A. I was reading this. Go ahead.

20 Q. My question was that you testified earlier you
21 didn't know what stronger meant. In the context of
22 the statements in the third paragraph that we just
23 talked about which state, quote, a high smoke pH -- a
24 high pH smoke is strong due to a high concentration
25 of unbound, or free, nicotine in the smoke, it would

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1 appear that when these folks used the word "stronger"
2 they were referring to additional unbound nicotine,
3 correct?

4 MR. McELVEEN: Objection.

5 A. I don't know what they meant exactly. I guess
6 it means what it says.

7 Q. Well --

8 A. You are free to read it.

9 Q. If there is any doubt, why don't you look at the
10 next sentence. It says, "Calculations of the unbound
11 nicotine in the smoke of the brands studied were made
12 and used as relative measures of strength for
13 cigarettes"; right?

14 A. That's what it says.

15 Q. So when they are measuring strength of
16 cigarettes, they are using the calculation of unbound
17 nicotine as their measure of strength; right?

18 A. I don't know what they are doing.

19 Q. You don't know what this document says?

20 MR. DAVIS: Objection.

21 A. Well, I think I answered your question. I don't
22 really know what they had in mind with strength.

23 Q. But they tell you, don't they?

24 A. Not really.

25 Q. You don't -- you don't believe that accurately

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1 tells you or adequately tells you what they are
2 talking about when they are talking about strength?

3 A. I think you would have to talk to them. It
4 doesn't mean that to me.

5 Q. Did you ever send them a memo and say, you know,
6 I've read your document and, frankly, I just don't
7 understand it?

8 A. On this document?

9 Q. Yeah.

10 A. Not that I recall, but I don't recall ever
11 reading the document so, you know --

12 Q. They then go on to state the "correlation of
13 these values with sales trends were made and the
14 results showed even stronger positive correlations
15 than were found for smoke pH sales trends studies";
16 correct?

17 A. That isn't what it says.

18 Q. That isn't? What did I read wrong?

19 A. The results of these studies show that there is
20 a very strong positive correlation between smoke pH
21 and sales trends over the years studied.

22 Q. I'm sorry, I guess -- This is the sentence I was
23 looking at. It's the very last sentence on the
24 page.

25 A. Oh, okay.

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1 Q. Quote -- Because, you know, we have been talking
2 about this notion of strength and unbound nicotine
3 and that's why I've been talking about this third
4 paragraph here. Are you with me on that third
5 paragraph?

6 A. Okay.

7 Q. Okay.

8 A. The last sentence there?

9 Q. Okay. I'm down there. Okay?

10 A. Okay.

11 Q. It says, quote, "Correlation of these values
12 with sales trends were made and the results showed
13 even stronger positive correlations than were found
14 for smoke pH-sales trends studies"; correct?

15 A. That's correct what you read, but doesn't make
16 much sense to me.

17 Q. Did you ever write a memo back to those folks
18 and said, you know, you have now written a memo about
19 pH, an area which I know a fair amount about, doggone
20 it, it doesn't just make sense?

21 MR. DAVIS: Objection.

22 MR. McELVEEN: Asked and answered.

23 A. Correlation of these with sales trends were
24 made. Okay. This is referring back not to pH but to
25 free or so-called unbound nicotine.

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1 Q. Correct.

2 A. When you read that part before you read that, it
3 does make some sense.

4 Q. Okay. And of course that's what we have been
5 going through and referring to here for the past
6 couple minutes; right?

7 MR. DAVIS: Objection.

8 A. I haven't read all of this so, you know, you hop
9 down, and I don't know what it said above it. Then,
10 yes, it doesn't make much sense sometimes and I
11 don't --

12 Q. Let's go to the next page, 500606139. Are you
13 with me now? Do you know where I'm at?

14 A. Are you on page 2?

15 Q. Yup. They conclude at that top sentence, they
16 say, "The results of these studies suggest that the
17 strength of a cigarette, which may be controlled in
18 part by adjustment of smoke pH, is extremely
19 important to successful performance of the
20 cigarette"; correct?

21 A. That's what it says, sure.

22 Q. And in fact RJR was going to go forward and make
23 a stronger cigarette by adjusting their smoke pH;
24 correct?

25 A. I don't know.

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1 Q. Let's look on page 3. Specifically let's look
2 at the part on page 3 that's entitled "Free or
3 Unbound Nicotine." It's down there towards the
4 bottom of the page. Are you with me?
5 A. Uh-huh. May I read it?
6 Q. Go ahead.
7 A. Okay, I've read the first paragraph.
8 Q. This is again an explanation similar to an
9 explanation you had in one of your documents about
10 the effect of pH on free nicotine; correct?
11 MR. DAVIS: Objection. Go ahead.
12 A. We are both talking about free nicotine and pH
13 and smoke. I'm not sure we came to the -- out at the
14 same point and same conclusions, but whatever.
15 Q. Well these people state that as the smoke pH is
16 increased, the amount of free nicotine in the smoke
17 increases; correct?
18 A. That's what they say. I'm -- later came to have
19 some questions about whether that was really a
20 meaningful figure. It's a calculated thing, but go
21 ahead.
22 Q. By the way, in preparing for this deposition,
23 did you read the deposition of Dr. Rodgman?
24 A. No, huh-uh.
25 Q. You weren't shown that?

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1 A. Has he given a deposition?
2 Q. Were you told about it, sir?
3 A. I don't think so.
4 Q. Okay.
5 A. I don't recall discussing it.
6 Q. It then states, "For example, at a smoke pH of
7 6, about 1.5% of the nicotine in the smoke is in the
8 free, or unbound, form"; correct?
9 A. That's what it says. I'm not saying that the
10 statement is correct. I'm -- When you say "correct,"
11 you mean did you read it correct. So we all
12 understand each other, you read it correctly.
13 Q. And you believe it's an incorrect statement?
14 A. I didn't say that either. I just said I'm not
15 saying the statement is correct. I'm saying you read
16 it correctly.
17 Q. Why don't you tell the ladies and gentlemen of
18 the jury whether you believe it's correct or
19 incorrect.
20 A. Which statement is this?
21 Q. The one we have just been talking about, sir.
22 A. "For example, smoke pH of 6.0," is that the
23 sentence you are looking at?
24 Q. Yes. Is that correct or incorrect?
25 A. I don't really know. Later as I looked a little

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1 more at smoke pH and the measurement and calculation,
2 I'm not at all sure that that is a meaningful thing.
3 I think at the time this was written probably people
4 thought --
5 Q. What year did you take an additional look at the

6 calculated nicotine level?
7 A. I couldn't tell you.
8 Q. Was it --
9 A. After this was written.
10 Q. Okay. But prior to the time you left research?
11 A. I would think so, yes. I don't --
12 Q. So sometime before -- when in -- I'm sorry, when
13 in 1975 did you leave research?
14 A. I'm not sure.
15 Q. Well, sir, you are going to know that better
16 than me.
17 (Interruption by the reporter.)
18 A. I said we were both in deep trouble.
19 If I don't remember the date, I don't remember.
20 Q. I don't need the exact date, sir. Why don't you
21 give me the approximate date again, sir.
22 A. When I left research?
23 Q. Right.
24 A. I'm not even certain it was 1975. I was
25 thinking it was more '76. I think we tracked it

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1 back, backed into it some way. It was either late
2 '75 or early '76, but I don't know. I wouldn't want
3 to --
4 Q. What caused you to do additional studies at that
5 time on this pH phenomenon, do you remember? Were
6 you working on some kind of project that caused you
7 to reevaluate?
8 A. I think as this project went along and some
9 information came in, I think we kind of realized we
10 were chasing a rabbit there, that the whole concept
11 was somewhat kind of flawed and it seemed -- I'm just
12 guessing that was the occasion for thinking about it
13 again and you wonder, well, you know, that would
14 certainly be one obvious thing to question, is free
15 nicotine and all.
16 The other thing is: At some point in that
17 period when we were looking at what's going on here
18 in nicotine, free nicotine and impact, and you are
19 going to say your mantra about move to strike, not
20 whatever, but do you want to hear this or not?
21 MR. McELVEEN: Go ahead and finish your
22 answer, Dr. Teague.
23 A. Okay. I read something about, I think, I
24 couldn't tell you where, that if you -- a smoker
25 smoke or inhaled smoke, known amount of nicotine,

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1 maybe a fairly high amount, the exhaled smokes
2 contained essentially no nicotine. So if that's a
3 fact, then all of this is not very meaningful.
4 Q. Free nicotine is still more physiologically
5 active and more readily absorbed than bound nicotine;
6 correct, sir?
7 A. In some cases it could be.
8 Q. This document then goes to say that at pH 6.5
9 about 5 percent of the nicotine is unbound and at pH
10 7 approximately 15 percent is free nicotine; correct?

11 A. That's what it says.
12 Q. It says, "Since the unbound nicotine is very
13 much more active physiologically, and much faster
14 acting than the bound nicotine, the smoke at a high
15 pH seems to be strong in nicotine"; correct?
16 A. That's what it says. That's what I'm saying
17 later on, after thinking it over and trying to
18 reconcile in my mind why all this didn't really pan
19 out, but I'm not sure free nicotine is a useful
20 concept.
21 Q. It says, "Therefore, the amount of free nicotine
22 in the smoke may be used for at least a partial
23 measure of the physiological strength of the
24 cigarette"; correct?
25 A. That's what it says.

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1 Q. Let's go to the conclusions at page 5. Are you
2 with me on page 5?
3 A. Well, I was trying to see what happened between
4 then and page 5. Go ahead.
5 Q. The conclusion, the third conclusion on page 5
6 states, quote, "Over the years studied there was a
7 very strong positive correlation between smoke pH and
8 sales"; right?
9 A. That's what it says, sir.
10 Q. It says, "An even better correlation was
11 observed between free nicotine in the smoke and
12 sales"; correct?
13 A. Again, yes.
14 Q. Now you continued -- the research department
15 continued to study this phenomenon of smoke pH as a
16 function of sales; correct?
17 A. Continued after this was written?
18 Q. Yes, after that particular document was --
19 A. I don't know.
20 Q. You don't recall that?
21 A. No, I don't, but this was written in '73 and I
22 think one of those things, one piece out of it said
23 we expected to continue intensive work on whatever it
24 was that I think included this in 1974 so --
25 Q. And were you going to continue to be involved in

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1 that project, do you recall?
2 A. That I don't know.
3 Q. You don't recall that?
4 A. No, I don't. I'm involved in so many things.
5 MR. O'FALLON: Let's mark this as the next
6 exhibit.
7 (Plaintiffs' Deposition Exhibit 1092 was
8 marked for identification.)
9 (Discussion off the stenographic record.)
10 BY MR. JANECEK:
11 Q. I have marked as Exhibit 1092 a document dated
12 January 15, 1975 and Bates stamp numbered 500615944
13 through 5960.
14 Do you recognize that document?
15 A. Well, I -- I don't really remember ever seeing

16 it. I presume it was -- Let me look at the
17 distribution. I am on the distribution so it passed
18 through my hands at some point.
19 Q. And just to confirm for the record, you are on
20 the distribution list and that's set forth on Bates
21 number 500615952, correct, page 9 of the document?
22 A. Page 9 of the document, sure.
23 Q. Let's go back to the front of the document.
24 A. Okay.
25 Q. Are you with me on the front page? Do you see

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1 under "OBJECT"?
2 A. Uh-huh.
3 Q. "The object of this work was to update the
4 review and analyses of 1974 competitive brand data
5 with special emphasis upon WINSTON, SALEM, Marlboro,
6 and Kool brands"; correct?
7 A. That's what it says, sure.
8 Q. Under the first paragraph of their summary they
9 state, quote, "A review of 1974 competitive brand
10 data indicates that the correlation between smoke pH
11 and sales trends was similar to previous years";
12 correct?
13 A. Yes, sir.
14 Q. They state, quote, "With only a few exceptions,
15 brands with high smoke pH performed better than those
16 with low smoke pH"; correct?
17 A. You read correctly.
18 Q. Corrections --
19 "Correlations were also observed between
20 calculated free nicotine and sales trends and total
21 sugar in the blend and sales trends"; correct?
22 A. Yes, sir.
23 Q. So at least as of January 15 of 1975 it was
24 still believed by at least some in research that free
25 nicotine correlated with sales; correct?

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1 A. Apparently whoever wrote this believed that. I
2 guess, I don't know. It was --
3 Q. And do you recall --
4 A. Excuse me.
5 Q. Do you recall responding in January of 1975 to
6 this memo stating that you thought it was incorrect?
7 MR. DAVIS: Objection.
8 A. Well, I think I've already said I don't remember
9 seeing the memo so it's highly unlikely that I would
10 remember responding to it, if I did.
11 Q. They then note, quote, "These correlations were
12 also similar to those reported for previous years.
13 In general, brands with high smoke pH, high
14 calculated free nicotine and low total sugar in the
15 blend performed well"; correct?
16 A. That's again what it says.
17 Q. It was about this time period that R.J. Reynolds
18 decided to enter an ammoniated cigarette onto the
19 market; correct?
20 A. I don't know if they ever did.

21 Q. I'm going to show you a document that's been
22 previously marked in this litigation as Plaintiffs'
23 Exhibit 1062. At the top this says, "TECHNOLOGY:
24 AMMONIATION"; correct?
25 A. Could I ask you a question about it? Who wrote
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1 it and where did it come from?
2 Q. Sir, this is what I got out of the depository in
3 Minneapolis, produced by R.J. Reynolds.
4 A. I don't know -- You don't know when it was
5 written or who by or to whom it was addressed?
6 Q. Well, I do not.
7 A. Okay. I --
8 Q. I may actually have that information in a
9 database but I did not bring that information with
10 me. In part because you refused to sign a protective
11 order and at least some of that information may be
12 protected.
13 MR. DAVIS: Object to that. Go ahead.
14 Q. Okay.
15 MR. DAVIS: Let him ask the questions, Dr.
16 Teague.
17 A. What is it you want to ask about?
18 (Interruption by the reporter.)
19 (Recess taken from 4:02 to 4:13 p.m.)

20 BY MR. O'FALLON:
21 Q. When we took a break I had asked you to look at
22 what's previously marked as Exhibit 1062, concerning
23 ammoniation technology. This document defines
24 ammoniation technology as the reation of ammonia with
25 tobacco to produce --
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1 A. Whoa. "Reaction." That's just a typo. Excuse
2 me.
3 Q. Are you sure?
4 A. "Reation"? I think it should say "reaction."
5 Excuse me. I didn't mean to interrupt. Go ahead.
6 Q. The reaction of ammonia with tobacco to produce
7 ammoniated tobaccos which smoke differently and
8 produce a milder smoother flavored smoke; correct?
9 A. Yes, sir.
10 Q. It says, "RJR BEGAN WORKING WITH AMMONIATION OF
11 TOBACCO AND TOBACCO BY-PRODUCTS IN THE 1950s, BUT DID
12 NOT APPLY THE TECHNOLOGY"; correct?
13 A. That's what it says, yeah.
14 Q. In fact, you were the person who was working
15 with that ammoniation technology; correct?
16 A. I did some early work on it.
17 Q. Did you apply for a patent on any of that?
18 A. I -- My feeling is we did not, but I may be
19 wrong.
20 Q. States, "PHILIP MORRIS BEGAN USING AN
21 AMMONIATED SHEET MATERIAL IN 1965 AND INCREASED USE
22 OF THE SHEET PERIODICALLY FROM 1965 TO 1974. THIS
23 TIME PERIOD CORRESPONDS TO THE DRAMATIC SALES
24 INCREASE PHILIP MORRIS MADE FROM 1965 TO 1974";
25 correct?

1 A. As read.
2 Q. And that's basically what the documents that we
3 have been looking at these last couple hours have
4 shown; correct?
5 MR. DAVIS: Objection.
6 A. Well, that's kind of a broad statement. I
7 wouldn't want to agree to something that broad, if
8 you can be more specific.
9 Q. Well specifically we have seen that the
10 correlation between pH and free nicotine and sales,
11 and Philip Morris sales in particular, occurred
12 during that time period; correct?
13 A. Right. It was a statistical correlation. It
14 wasn't necessarily a proof.
15 Q. And Philip Morris increased its pH through the
16 use of ammoniated sheet; right?
17 A. That sounds familiar.
18 Q. RJR introduced ammoniated sheet material in the
19 Camel filter product in 1974; correct?
20 A. Where are you reading? You skipped a -- You
21 skipped a couple paragraphs, didn't you?
22 Q. Does the document state that "RJR INTRODUCED
23 AMMONIATED SHEET MATERIAL IN THE CAMEL FILTER PRODUCT
24 IN 1974"?
25 A. Uh-huh.

1 Q. And that also says, "BETTER MARKET PERFORMANCE
2 WAS INDICATED IN THE SUBSEQUENT YEARS"; correct?
3 A. That's what it says, sure.
4 Q. It also says that "LOW TAR PRODUCTS AT RJR WERE
5 DESIGNED WITH AMMONIATED SHEET MATERIAL BEGINNING IN
6 1974"; correct?
7 A. That's what it says.
8 Q. Then states that "RSM STUDIES SHOWED AMMONIATION
9 WAS ONE OF THE MAJOR CONSUMER RECOGNIZED PRODUCT
10 ATTRIBUTES TESTED"; correct?
11 A. That's what it says. I don't know what RSM
12 means, but I don't have to, I guess.
13 Q. Second page it states "AMMONIATED SHEET WAS
14 INTRODUCED INTO WINSTON KS PRODUCT IN 1979"; correct?
15 A. That's what it says.
16 Q. So we know that this document is written at
17 least in 1979; correct?
18 MR. McELVEEN: Objection.
19 Q. That would have been the earliest this document
20 would have been written?
21 A. In 1979, that it was written presumably after it
22 was introduced, so it was after some time in 1979, I
23 guess.
24 Q. They then state the product characteristics that
25 result for adding ammoniated flue-cured tobacco;

1 correct?

2 A. Oh, yeah, buried under some stamps or
3 something. Okay. Are you reading down the Berger
4 dots?
5 Q. It says here is the product characteristics for
6 tobacco: Higher -- milder smoother taste; correct?
7 A. It doesn't say here.
8 Q. Doesn't it imply that?
9 A. It just says "PRODUCT CHARACTERISTICS," colon.
10 I don't know what it implies.
11 Q. Do you think it's reasonable to conclude in
12 reading this document that that colon basically
13 indicates that here they are? Is that not how you
14 would read it?
15 A. Isn't how I write it but --
16 Q. How would you read it? How would you interpret
17 it?
18 A. I wouldn't.
19 Q. Not at all?
20 A. I don't know that I've ever seen it before. Do
21 I have to interpret it?
22 Q. Is it reasonable to conclude what they are
23 listing there, sir, are product characteristics
24 resulting from ammoniated sheet being added to Philip
25 -- to R.J. Reynolds' products?

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1 A. I would assume that's probably the case.
2 Q. And those characteristics include a "milder
3 smoother taste"; correct?
4 A. Why don't you just read them all and I'll say
5 correct once. Okay?
6 Q. Why don't you let me do this my way; okay?
7 A. Okay.
8 Q. Okay.
9 A. All right. I'll do it my way and --
10 MR. McELVEEN: Let me interpose a
11 continuing objection on this line of questions on the
12 basis that I think this all calls for speculation on
13 the part of the witness since he's indicated he has
14 never seen this document before, doesn't know who
15 wrote it or when it was written or what it was
16 written for, so I just --
17 MR. O'FALLON: With all due respect, that
18 would be true of a great many of the documents I've
19 shown him today, including documents that he has been
20 copied on. So while I understand your objection, I'm
21 not sure it's valid in this context.

22 MR. McELVEEN: I just make it for the
23 record.
24 BY MR. O'FALLON:
25 Q. Another product characteristic is "HIGHER SMOKE
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1 pH"; correct?
2 A. That's listed here.
3 Q. "CLEANER TASTE WITH MORE FREE NICOTINE";
4 correct?
5 A. You skipped "MORE CHOCOLATE-BURLEY TYPE;
6 POSITIVE FLAVOR WITHOUT NEGATIVE BURLEY

7 CHARACTERISTICS".
8 Q. Okay. Tastes better. Is that how you'd
9 interpret that?
10 A. No, I wouldn't interpret it at all. I said you
11 skipped one Berger dot and went down to cleaner taste
12 with more free nicotine, and that is written here.
13 Q. It also talks about "CLEANER TASTE WITH MORE
14 FREE NICOTINE"; correct?
15 A. Yes, sir.
16 Q. And "STRONGER PHYSIOLOGICAL IMPACT WITH LESS
17 HARSHNESS"; correct?
18 A. That's what it says.
19 Q. And then "DIFFERING FLAVOR EFFECTS DEPENDING
20 UPON THE TYPE OF TOBACCO AMMONIATED"; correct?
21 A. Yes, sir. That's what it says.
22 Q. By 1979 it looks like at least someone at R.J.
23 Reynolds still believes that ammoniation results in
24 higher free nicotine and a higher and a stronger
25 physiological impact when it's added to cigarettes;

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1 correct?
2 MR. DAVIS: Objection.
3 A. Excuse me? I --
4 MR. McELVEEN: Go ahead. You can go ahead
5 and answer. The objection is for the record.
6 MR. DAVIS: Go ahead and answer.
7 A. I don't know that this is an RJR document, I
8 don't know who wrote it, I don't know what it refers
9 to, when it was written, so I can't --
10 Q. Let's assume --
11 A. Let's don't assume.
12 MR. McELVEEN: I'm sorry, the objection is
13 not registered on here, says "MR. DAVIS," --
14 (Interruption by the reporter.)
15 BY MR. O'FALLON:
16 Q. Assuming this document was in fact written by an
17 R.J. Reynolds' employee and produced in this
18 litigation by R.J. Reynolds, it would appear that as
19 of approximately 1979 R.J. Reynolds, or someone at
20 R.J. Reynolds, still believed that adding ammonia to
21 a cigarette would result in higher smoke pH and more
22 free nicotine and a stronger physiological impact
23 with less harshness; correct?
24 A. I don't know. I wasn't there. Didn't we say in
25 1975 I was out of there.

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1 Q. You were still in the company.
2 MR. McELVEEN: Objection, I think that
3 mischaracterizes his testimony and he further said he
4 doesn't know if this is a Reynolds document or not.
5 MR. O'FALLON: Well, sir, do you want to
6 testify this was not a Reynolds document? This was
7 produced by your company. Was this or was this not a
8 Reynolds document?
9 MR. McELVEEN: The witness is answering the
10 questions.
11 A. I don't see anything here to tell me --

12 MR. O'FALLON: Is this a Reynolds
13 document?
14 MR. DAVIS: The witness -- This is a
15 deposition of Dr. Teague. If you want to ask the
16 witness questions, ask the witness questions
17 BY MR. O'FALLON:
18 Q. Does the document state "produced by RJRTC in
19 HUMPHREY," sir?
20 A. Who's Humphrey?
21 Q. Humphrey is the name of the attorney general I
22 represent.
23 A. Oh, okay. Yeah. The guy running for governor.
24 Yeah, I got you. That's what it says here, but it's
25 unusual to me to see something that doesn't have an
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1 author, a date, a distribution, not addressed to
2 anybody. I think it's kind of unfair. Also written
3 presumably about four years after I was out of the --
4 Q. You are still in the company, --
5 A. -- research depart --
6 Q. -- aren't you, sir?
7 A. I was in business planning, I think, at that
8 time.
9 Q. You just basically didn't know anything about
10 cigarettes after that point?
11 A. I was pretty much out of the loop, yeah. I mean
12 I -- I had very little to do with it at that time. I
13 mean I --
14 Q. Assuming this document is an R.J. Reynolds'
15 document and written by an R.J. Reynolds' employee,
16 it would appear that at least by 1979 the basic
17 concepts we have talked about in your documents; that
18 is, the notion of free nicotine and high pH were
19 still being used by R.J. Reynolds in its products;
20 correct?
21 MR. DAVIS: Objection.
22 A. There is a lot of assumptions that I wouldn't
23 care to make. I've just objected to the whole
24 concept of messing with the document that I don't
25 know where it came from, who wrote it, how correct it
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1 is and so forth.
2 MR. O'FALLON: I'm going to mark as a
3 document a document Bates stamp number 500540827
4 through 0832.
5 THE WITNESS: This is for me? Are we
6 through with this?
7 MR. O'FALLON: Yes.
8 (Plaintiffs' Deposition Exhibit 1093 was
9 marked for identification.)
10 BY MR. O'FALLON:
11 Q. I've had marked as Plaintiffs' Exhibit 1093 a
12 document Bates stamp numbered 5005402 -- 0827 through
13 0832 through August 9, 1982.
14 A. That says August 9, 19 -- it says '92 to me. My
15 eyes aren't all that good, but it doesn't look like
16 an 8 to me.

17 MR. DAVIS: It's not a good date but I
18 believe it is '82, Dr. Teague.
19 THE WITNESS: Okay.
20 MR. DAVIS: Let's assume that it's '82.
21 Q. This document again is entitled "AMMONIA"; is
22 that correct, sir?
23 A. Could I ask you a couple questions? I don't
24 know where it came from, who wrote it, who it was
25 addressed to. It was -- Unless my copy is defective,
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1 nobody signed it. There is no distribution. I have
2 no idea --
3 Q. I'll tell you what, I have another document --
4 MR. O'FALLON: Let's go off the record for
5 a second.
6 THE REPORTER: Off the record.
7 (Recess taken from 4:27 to 4:30 p.m.)
8 (Plaintiffs' Deposition Exhibit 1094 was
9 marked for identification.)
10 BY MR. O'FALLON:
11 Q. I've marked as exhibit -- Plaintiffs' Exhibit
12 1094 a document Bates stamp numbered 504438506
13 through 8512. Do you have that document in front of
14 you?
15 A. This one (indicating)?
16 Q. Oh, I'm sorry.
17 A. Can I get rid of these? They are beginning to
18 pile up over here.
19 MR. DAVIS: Just slide them away.
20 THE WITNESS: Okay.
21 Q. Do you have 1092 in front of you?
22 MR. DAVIS: 1094?
23 A. 1094. Sure do.
24 Q. The first page of 1094 is a memo from two
25 individuals named Bernasek and Nystrom to Dr.

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1 DiMarco; correct?
2 A. I believe so.
3 Q. And who is Dr. DiMarco?
4 A. He was a -- I don't know at this time. He was a
5 vice president of some kind. I'm not sure what,
6 staff or executive or senior or what. But -- When
7 was this?
8 Q. Again it says "Attached are position papers
9 describing our rationale for using the following
10 additives in RJRT tobacco flavor formulations";
11 correct?
12 A. Excuse me. I don't have -- "Attached..." Yes,
13 that's what it says there.
14 Q. And one of those additives is ammonia; correct?
15 A. That's right.
16 Q. And then attached is a document that's dated
17 8/9/82; correct?
18 A. Well, if I were reading it I would say 8/9/52,
19 but my copy might not be --
20 Q. Why don't you compare it to the previous --
21 A. What would you read that as?

22 Q. Why don't you compare it to the previous
23 document, sir.
24 A. Well, I thought that said '92 so maybe my eyes
25 are bad. I don't know.

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1 Q. Why don't you --
2 A. Like I said, it was probably '82. I'm going to
3 accept that.
4 Q. Why don't you look on the first page of the
5 document, back on that memo part. Do you see 1094
6 there, sir?
7 MR. McELVEEN: That's the second page, Dr.
8 Teague, second page.
9 MR. O'FALLON: No, I said the first page.
10 A. 10/94 what? Oh, Exhibit 1094.
11 Q. Right. You see the first page of 1094?
12 A. Yes.
13 Q. Okay. Do you see it says, in the second full
14 sentence it says, "based on our discussions on July
15 16, 1982"?
16 A. Right. Well, sure, DiMarco came right around
17 that time. He clearly wasn't there in '52 and he was
18 probably gone in '92 so, yeah, okay, we are on the --
19 Q. Do you think based on the evidence we have here
20 we can conclude this is an August 9 of 1982 document?
21 A. Yeah, I -- I would say that's --
22 Q. And apparently what we are going to be looking
23 at here is a position paper of R.J. Reynolds Tobacco
24 Company; correct?
25 A. Well, that's a memo to Dr. DiMarco. I wouldn't

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1 characterize it much further than that.
2 Q. Okay.
3 A. I don't know what a position paper is. Do you?
4 Anyway, go ahead.
5 Q. It says "Attached are position papers...";
6 right?
7 A. Pardon?
8 Q. It says, "Attached are position papers
9 describing our rationale for using the following
10 additives in RJRT tobacco flavor formulations";
11 right?
12 A. Okay, okay.
13 Q. So it appears to be a position paper.
14 A. They thought it was, yeah.
15 Q. And they are the people writing it; correct?
16 A. Exactly.
17 Q. So presumably they would know.
18 A. I do hope so.
19 Q. Yeah. I mean, I assume at some point when you
20 were at RJRT that you kind of had some faith in your
21 fellow employees to, you know, state what they mean
22 and mean what they state?
23 A. Well --
24 Q. No?
25 A. You'd have to --

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- 1 Q. As a manager you would probably want to get rid
2 of people who didn't do that, wouldn't you?
3 A. You ever try to fire anybody at RJR?
4 Q. I didn't. Did you?
5 A. It's pretty hard to do.
6 Q. So you kept around a lot of people that weren't
7 very good?
8 A. Didn't say that at all. I just said it was hard
9 to fire people.
10 Q. Well I'm just trying to understand here. I
11 mean, we seem to be having problems with what people
12 write, so, I mean, did you generally keep and retain
13 competent people or incompetent people?
14 MR. McELVEEN: Objection.
15 A. Does that have anything to do with this
16 document?
17 Q. Well I'm asking you generally. You talked a lot
18 about, you know, people so I'm asking you. You were
19 a manager, you were in a position of authority at
20 R.J. Reynolds. Did you make it a practice to keep
21 and retain competent people?
22 A. These two people I would consider quite
23 competent, the two authors of this.
24 Q. You know these guys?
25 A. Sure.

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- 1 Q. And they are competent?
2 A. I think so.
3 Q. Great. Let's go see what they have to say about
4 the ammoniation of reconstituted tobacco, and let's
5 look specifically at the page Bates number 504438509.
6 A. Okay.
7 Q. You there?
8 A. I hope so. 8509 at the bottom.
9 Q. Do you see where it says "Ammoniation of
10 Reconstituted Tobacco"?
11 A. Yes, sir.
12 Q. States, studies on the ammoniation of
13 reconstituted tobacco were started in 1973 as a
14 result of R&D studies carried out during the '50s and
15 early 1970; correct?
16 A. That's what it says.
17 Q. It says, "During the 1950s, Dr. C. E. Teague,
18 Jr. investigated the ammoniation of tobacco and
19 tobacco stems and reported dramatic improvements in
20 the smoking qualities of ammoniated tobacco stems";
21 right?
22 A. That's what it says.
23 Q. So you had a fair amount of experience with
24 ammoniation by the time you were looking at the issue
25 in 1970; correct?

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- 1 A. Early on that was -- that I think was one of my
2 10 percent of my time to fiddle with.

3 Q. Oh, ammoniation was another one of your 10
4 percents?
5 A. Oh, when I started. I've forgotten how, quite
6 by accident, I found out that ammonia would react
7 with flue-cured tobacco stems.
8 Q. Well this is another perfect example then of the
9 fact that R.J. Reynolds wants you to take that time
10 and do constructive things and they are perfectly
11 willing to take the product of your work that was
12 done during that 10 percent of your time and use it;
13 right?
14 A. If they choose to.
15 Q. And that's exactly what they chose to do here,
16 right, they took that work you did in the 1950s and
17 by goodness when you got to the 1970s and realized
18 that there was this correlation between pH and free
19 nicotine and ammonia, they used that work of yours,
20 didn't they?
21 A. It took a long time. This is -- We agreed this
22 was written in 1982. That's 30 years or more.
23 That's not what you'd call instantly saying my work
24 was really great and let's pick it up and run with
25 it.

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1 Q. But they did it, didn't they?
2 MR. DAVIS: Objection.
3 A. I don't know whether they did it or not. I
4 mean, I don't know how much influence my work had on
5 what happened. I hope it had some.
6 Q. It states, "In the early 1970s, a major R&D
7 program was initiated to investigate the physical
8 chemistry of tobacco and tobacco smoke in an attempt
9 to gain a better understanding of the factors
10 affecting smoke harshness, irritation and strength";
11 right?
12 A. Yes, sir, that's what it says.
13 Q. And part of that major R&D program are the
14 documents we have looked at that have addressed the
15 strength of tobacco and the flavor, right, and the
16 chemistry? pH is part of the chemistry of tobacco,
17 isn't it?
18 MR. McELVEEN: That's a compound question.
19 MR. DAVIS: Objection. Objection.
20 Q. I'll break it in half.
21 A. How about fourth?
22 Q. The fact of the matter is that the documents we
23 have looked at today concerning smoke pH, they were
24 part of that major R&D program; right?
25 A. I don't know.

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1 Q. Well, sir, you were there. You were an
2 assistant research director.
3 A. Yeah.
4 Q. You would know.
5 A. Well, I guess I've forgotten then, if I knew.
6 You know, I don't know. They may or may not have
7 been. I don't know what --

8 Q. These authors here, these folks you said are
9 very competent then go on to state, quote --
10 A. I didn't say they were very competent, I said I
11 considered them competent.
12 Q. To state, quote, "These studies led to the
13 following observations and conclusions: (1)."
14 A. Where are we?
15 Q. Right here. In the second paragraph, see where
16 I am? Right there.
17 A. Second paragraph.
18 Q. Under "Ammoniation of Reconstituted Tobacco."
19 A. Okay, okay.
20 Q. I'm in the last sentence of that document. See
21 that?
22 A. Last sentence of the first paragraph?
23 Q. The second paragraph, sir.
24 A. Okay.
25 Q. You see that, "These studies led to the

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1 following observations and conclusions"; right?
2 A. Uh-huh, right.
3 Q. And "these studies," we are talking about this
4 major R&D program; right?
5 A. I don't know. I haven't see -- I don't remember
6 reading this, I can't tell you off the top of my
7 head. I mean, if you want me to study on it and
8 think about it.
9 Q. Do you think you need to do that to make that
10 conclusion? Because if you do I'll give you the time
11 to sit here and study on it right now.
12 A. Okay.
13 Q. Why don't you go ahead and study on that, see if
14 you can figure that out for me.
15 A. Okay. I kind of think these conclusions are
16 lifted from an earlier report in the 1970 area.
17 Q. Where do you get that from? I'm sorry, sir. Is
18 that what -- Okay.
19 A. I don't know. They sound familiar. Maybe I've
20 just read this three times.
21 Q. Do you think maybe they sound familiar because
22 we have been talking about these exact same concepts
23 here for the last couple hours?
24 MR. DAVIS: Objection. Go ahead.
25 A. Well, no. The language here I think I remember

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1 seeing in something -- one of the things that we have
2 seen some of the paper lately.
3 Q. Let's talk about the results of that major R&D
4 program that these gentlemen now in 1982 are
5 summarizing. Number 1 it says, "The pH of cigarette
6 smoke is important to smoke quality and can be used
7 as a measure of the physiological strength of the
8 smoke"; right?
9 A. That's what it says, sure.
10 Q. And that's again -- that's concepts we have
11 talked about earlier today, right, in looking at
12 documents you were copied on?

13 A. Yes, sir.
14 Q. Number "(2) Ammonia in smoke is one of the major
15 pH controlling components"; right?
16 A. That's what it says.
17 Q. Ammonia occurs naturally in tobacco; right?
18 A. Where are you reading that?
19 Q. Number (3).
20 A. You didn't finish number (2), but that's all
21 right.
22 Q. That's fine. "Others include nicotine, amines,
23 organic acids and carbon dioxide."
24 A. There is my carbon dioxide. You said "what do
25 you mean by that" earlier, do you remember?

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1 Q. I think you talked about cigarettes were a major
2 carbon dioxide delivery device --
3 (Interruption by the reporter.)
4 Q. Sir, I'm not at all disputing with you that
5 cigarettes are a carbon dioxide delivery device. I'm
6 not disputing that with you at all.
7 A. That's not what I said. I said earlier that
8 carbon dioxide, think about it now, I said in water
9 makes carbonic acid which can react with alkaline
10 substances like nicotine.
11 Q. To make a salt.
12 A. Right.
13 Q. Right.
14 A. So that carbon dioxide may play as much role in
15 some of this supposed free nicotine, nicotine
16 delivery as ammonia did. That was all I was saying.
17 Don't you remember that?
18 Q. It may in fact play a role, but it's going to
19 play a role in reducing the pH and of course what you
20 were all trying to do was increasing the pH; correct?
21 MR. McELVEEN: Objection, I think that
22 mischaracterizes his testimony.
23 MR. DAVIS: Objection.
24 Q. You weren't trying to increase the pH?
25 A. Well, sometimes we were and sometimes we

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1 weren't. I mean, it turns out people like -- that
2 smoke Reynolds' products like lower pH cigarettes.
3 Q. And yet you ammoniated cigarettes so they would
4 get higher pH smoke; right?
5 A. I don't think we did it for that. I think
6 ammonia reacts with flue-cured tobacco stems that has
7 carbohydrates in it and you get -- and probably other
8 acidic things and reduce -- it makes the smoke
9 smoother, less irritating to some people.
10 Q. And increases free nicotine.
11 A. I don't know that it would necessarily. I think
12 the main reason you use nicotine in a stem or
13 scrapped --
14 MR. McELVEEN: I'm sorry, do you mean to
15 say "ammonia"? I think you said --
16 MR. O'FALLON: He may mean to say
17 "nicotine."

18 MR. McELVEEN: He may mean, but --
19 THE WITNESS: Ammonia, excuse me. I meant
20 ammonia.
21 A. The reason -- To me the reason to use ammonia in
22 a stem or stem scrap product from flue-cured and/or
23 stems is to reduce irritancy.
24 Q. It also increases the physiological
25 satisfaction, doesn't it? Ammonia increases

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1 physiological satisfaction.
2 A. It may.
3 Q. And what that is is basically nicotine effect;
4 correct?
5 A. Well, I think you are simplifying too much.
6 There is a whole host of alkaloids in tobacco and --
7 Q. Nicotine is the active alkylate isn't it, sir?
8 MR. DAVIS: Excuse me, please don't
9 interrupt him.
10 Are you finished with your answer?
11 A. Did you hear my answer?
12 Q. You want to testify that there is some other
13 alkaloid in tobacco that's more active than nicotine
14 physiologically?
15 A. I couldn't -- certainly couldn't say there
16 isn't.
17 Q. You couldn't?
18 A. No.
19 Q. After 30 years in the industry you can't tell me
20 whether or not there is an alkaloid in cigarettes
21 that's more active than nicotine?
22 A. You got it.
23 Q. You never put that in any of these memos when
24 you talk about how nicotine is the sine qua non of
25 cigarette smoking, do you, sir?

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1 A. Well, didn't I also testify yesterday that I --
2 you know, that was what everybody was saying, they
3 all fell in the same hole.
4 MR. McELVEEN: Let me interpose an
5 objection, too, at this point because I don't think
6 that was what his testimony was on that subject.
7 MR. O'FALLON: The record will speak for
8 itself and the ladies and gentlemen of the jury can
9 decide for themselves.
10 A. Sure. That's fair enough.
11 Q. This says --
12 MR. O'FALLON: Excuse me?
13 MR. McELVEEN: I'm sorry. I just said I'm
14 glad everybody is agreed, but that was actually just
15 an off-the-record statement.
16 MR. O'FALLON: But it made the record. How
17 about we limit those?
18 MR. McELVEEN: How about what?
19 MR. O'FALLON: How about we not mess up the
20 record.
21 MR. McELVEEN: Oh, sorry.
22 BY MR. O'FALLON:

23 Q. Under number (7) here it says that, "Studies of
24 the effect of ammonia on smoke composition showed a
25 reduction in aldehydes, especially formaldehyde, and
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1 an increase in the levels of pyridines, pyrazines,
2 and minor alkaloids"; right?
3 A. That's what it says.
4 Q. "Smoking panel results showed a decrease in
5 smoke irritation and harshness and an increase in
6 physiological satisfaction with increasing ammonia
7 content"; right?
8 A. Again that's what it says.
9 Q. So basically when you add ammonia to a cigarette
10 you get two things: Number 1, you get more nicotine
11 kick, physiological satisfaction, and number 2, you
12 get less smoke irritation.
13 A. Sometimes, sometimes you wouldn't.
14 Q. Unless you add too much nic --
15 Unless you add too much ammonia, at which point
16 you get too much nicotine and it results in a real
17 bitter taste because nicotine doesn't taste very
18 good, does it?
19 MR. DAVIS: Objection to form. Go ahead.
20 A. Nicotine doesn't taste very good?
21 Q. Does it taste good?
22 A. Well, a lot of people that chew chewing tobacco
23 and snuff must think it does. A pretty big market
24 out there. The primary -- In many of those products
25 I think the primary product -- the primary -- a major
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1 primary flavor factor is nicotine so, you know, it
2 depends on who you are. Beauty's in the eye of the
3 beholder.
4 Q. Fair enough. We are back to the notion
5 basically why people use tobacco products is for
6 nicotine.
7 A. You are back to that, I'm not. That may or may
8 not be true. I don't know. We just speculated there
9 might be a much more active, physiologically active
10 alkaloid or something else than nicotine.
11 Q. I didn't speculate on that.
12 A. Well I did.
13 Q. You speculated on that. As you sit here today
14 after 30 years in the cigarette industry you can't
15 tell me the identity of that alkaloid, can you?
16 A. Of course not.
17 Q. Because as far as you know, it doesn't exist?
18 A. Well, I think you can't prove a negative. Is
19 that what you are trying to say?
20 Q. Well after 30 years of research, no one at R.J.
21 Reynolds ever found a more active alkaloid in tobacco
22 smoke than nicotine, did they, sir?
23 MR. DAVIS: Objection. Go ahead.
24 A. I don't know whether they did or not. I've been
25 out of the loop for a long time.
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1 Q. As you sit here today, you can't testify that
2 there is a more active alkaloid in cigarette smoke
3 than nicotine, can you, sir?
4 A. I didn't testify to that. I said I thought
5 there was a possibility that that was the case.
6 Q. And you have absolutely no evidence to support
7 that statement.
8 A. Yeah, I do. Do you want to hear it?
9 Q. Did you ever write it in a memo?
10 A. I couldn't say.
11 Q. What's the name of the alkaloid?
12 A. I didn't say that. I said -- Do you want to
13 hear me?
14 Q. What's the name of the alkaloid that you think
15 is more active than nicotine that's in cigarettes?
16 A. I don't know that I ever named it.
17 Q. Well, if you can name it, why don't you name
18 it? Why don't you tell me the name of the alkaloid?
19 A. Do you want me to name it after you?
20 Q. If you want to.
21 A. Fine.
22 Q. Does it have a name, the alkaloid that you are
23 talking about?
24 A. I don't know. I don't think the physiological
25 activity of -- of all the alkaloids in tobacco has

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1 ever been studied. If it has, I'm not aware. I'll
2 tell you one thing --
3 Q. Don't you think the cigarette manufacturers --
4 MR. DAVIS: Why don't you let him answer
5 the question?
6 A. Can I go ahead and -- You seem interested in
7 this.
8 Q. I'm not -- I don't have a question pending.
9 A. Well, I have an answer pending, how about that?
10 Q. Well then you can give it to defense counsel
11 when they ask --
12 MR. DAVIS: If it explains your previous
13 answer, Dr. Teague, you can give it now.
14 THE WITNESS: Well it does.
15 MR. DAVIS: Go ahead.
16 A. I spent a lot of time, sometime way back early
17 in the lab, trying to purify nicotine. And nicotine,
18 each batch is different. The derivatives of it have
19 different properties, different melting points and so
20 forth. I don't know what those things were, but they
21 were things that accompanied nicotine and would
22 normally be measured with nicotine. And it was my
23 belief that they were tobacco alkaloids.
24 Q. And you never identified them further?
25 A. I didn't, no.

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1 Q. Don't you think that a company that manufactures
2 a nicotine-containing product or a product that
3 contains these other alkaloids should undertake the

4 research to figure out what other active components
5 there are in their cigarettes?

6 MR. McELVEEN: Objection, that calls for a
7 conclusion.

8 MR. DAVIS: Objection.

9 A. You are asking for an opinion.

10 Q. Well, you have offered an opinion sir, so sure,
11 I'm asking you to clarify your opinion.

12 MR. DAVIS: Objection.

13 A. Excuse me.

14 MR. DAVIS: Go ahead.

15 A. I didn't offer an opinion on whether the company
16 ought to do this or that or the other. I just said
17 in my experience in the laboratory in the early '50s
18 I came to the conclusion that your sample of nicotine
19 and mine might have a somewhat different composition
20 due to some lesser alkaloids or things that react
21 like alkaloids, and I -- I didn't pursue it.

22 Q. You are saying those are lesser alkaloids. Does
23 that mean they are less active than nicotine?

24 A. No. I think that what I meant there was that
25 they probably occur in less quantity. That doesn't

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1 necessarily mean they are less active.

2 Q. Nicotine is still the primary alkaloid in
3 tobacco smoke, correct, in terms of quantity?

4 A. As far as I'm aware.

5 Q. And you don't know, you think there is these
6 other alkaloids out there but --

7 A. I'm sure.

8 Q. -- you never did additional work to try to
9 figure out what those were?

10 A. I'm not competent to do that kind of work.

11 Q. Well did RJR ever think about hiring somebody
12 who was competent to do that work?

13 MR. McELVEEN: Objection.

14 A. I don't know what RJR thought.

15 Q. Did you tell RJR there were these other
16 alkaloids in the tobacco smoke and you couldn't
17 identify them?

18 A. I may have. I don't recall that.

19 Q. Do you know whether at that point RJR said,
20 "hey, we have got to identify these alkaloids and
21 figure out what they are"?

22 A. You act like -- I think we have danced around
23 this before. I don't know who RJR is. There is a
24 company there. I don't know -- I -- I don't speak
25 for it, and who would you tell?

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1 Q. The research director at the time. Did you tell
2 the research director at the time, "hey, I found
3 these minor alkaloids, we should find out what these
4 are?"

5 A. I don't think I did that. I don't know why I
6 thought -- I don't know that I had any
7 recommendation. At that time I was just trying to
8 purify some nicotine, and the more things I did the

9 more different, slight differences in there I got
10 that indicated mixtures, and that's all I'm telling
11 you.
12 Q. Did you ever say to your boss or whatever, you
13 know, I'm getting different types of nicotine here,
14 or I'm getting some other alkaloids here, we have to
15 take a look at this, we have to figure out what these
16 alkaloids are?

17 MR. DAVIS: Objection.

18 A. Why would I do that?

19 Q. Well wasn't this during a time period when R. J.
20 Reynolds was trying to identify the various
21 components in cigarette smoke?

22 A. This was in the early '50s probably some --
23 sometime.

24 Q. And one of the reasons they were trying to
25 identify those components was to figure out whether

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1 those individual components were carcinogenic,
2 correct, whether they produce cancer.

3 A. I don't know.

4 Q. I mean, isn't it possible that these minor
5 alkaloids you are talking about could be carcinogenic
6 substances?

7 MR. DAVIS: Objection.

8 A. I don't know.

9 Q. You would sure want to find that out, though,
10 wouldn't you?

11 A. Me? No.

12 Q. You wouldn't?

13 A. No.

14 Q. Well you don't want to produce a product that
15 has any more cancer-producing substance in it than it
16 already does, do you?

17 A. You are warping things, that's --

18 Q. Oh, I'm sorry, you don't think cigarettes
19 produce cancer, do you?

20 A. I don't know.

21 Q. You don't know?

22 A. I don't know.

23 Q. Do you have any opinion one way or the other on
24 that?

25 A. Lot of people say they do, some people say they

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1 don't.

2 Q. How about you, do you think cigarettes produce
3 cancer? Do you think they produce lung cancer? Let
4 me clarify the question.

5 A. I'm not really qualified, you know, all the
6 medical people that treated me for a bunch of years
7 thought ulcers, ulcers are caused by acids in the
8 stomach and stress. And then one day I recently
9 found out you have a bacteria. So I don't
10 automatically believe everything I hear and read. I
11 will certainly agree to you that many people have
12 alleged that cigarette smoking had a role in lung
13 cancer, but I don't know what I believe. You know, I

14 smoked for many, many years and so, you know, have
15 I -- Have I answered your question?
16 Q. So do you think the opinion you hold, which is
17 basically no opinion about causation, is a reasonable
18 opinion to hold?

19 MR. DAVIS: Objection.

20 A. Well, I'm a little leery about leaping to
21 conclusions because, as you can already see, in my
22 younger and brasher days I leapt to some conclusions
23 that later turned out to just not be correct. That's
24 research, about 99 percent of what you do is wrong or
25 fails.

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1 MR. O'FALLON: I'm going to move to strike
2 that as nonresponsive.

3 Q. Do you believe that it's reasonable for other
4 smokers to have an opinion like yours, which is
5 basically no opinion as to whether cigarette smoking
6 causes cancer?

7 MR. DAVIS: Objection.

8 MR. McELVEEN: Objection, calls for a
9 conclusion, speculation.

10 A. I don't know what other people think. It's an
11 individual thing.

12 Q. Do you consider yourself a reasonable human
13 being?

14 A. Sometimes.

15 Q. Do you think that the opinion you have
16 concerning the connection between cigarette smoking
17 and lung cancer and other cancers is a reasonable
18 opinion for you to hold?

19 A. Well if I didn't think so I wouldn't hold it,
20 would I?

21 Q. So it would be equally reasonable for other
22 smokers to have that same opinion; that is, that they
23 don't really know whether cigarette smoking causes
24 lung cancer; right?

25 MR. McELVEEN: Objection, that calls for
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1 speculation on the part of the witness.

2 A. I don't know what other smokers ought to think.

3 Q. And the fact of the matter is that companies
4 like R.J. Reynolds continue to tell the public that
5 there is a controversy about whether cigarette
6 smoking causing lung cancer; correct?

7 MR. DAVIS: Objection. Go ahead.

8 A. Did they? I don't know.

9 Q. What was the general opinion of R.J. Reynolds
10 and the company position of R.J. Reynolds concerning
11 the causal connection between cigarette smoking and
12 lung cancer when you were there for 30 years? What
13 was their opinion?

14 MR. DAVIS: Objection.

15 A. How would I know what their opinion was?

16 Q. Well presumably they --

17 A. We haven't identified yet who R.J. Reynolds is
18 that you keep talking about. The one I knew is dead,

19 the founder of the company. But, you know, there is
20 no company that speaks like the oracle and the words
21 roll out and everybody says "that's the company
22 position."

23 Q. So RJR never stated a company position --

24 A. I don't know what --

25 Q. -- internal to you as an employee as to whether
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1 they believed cigarette smoking caused lung cancer.

2 Is that your testimony?

3 A. Did you say "never"? I never say never.

4 Q. During the time you were there, during the 30
5 years that you were at R.J. Reynolds, was there ever
6 stated by the company a company position on whether
7 cigarette smoking causes lung cancer?

8 A. Was there ever a position stated?

9 Q. Yes.

10 A. By the company to me personally?

11 Q. Well, to you as an employee.

12 A. I don't recall any such thing. May have, may
13 not. You know, times change.

14 Q. So --

15 MR. DAVIS: Let's end for the day.

16 MR. O'FALLON: Let me get this done.

17 BY MR. O'FALLON:

18 Q. So as the assistant research director, as an
19 assistant to a vice president, as a person who is a
20 member of upper management, you can't tell me whether
21 R.J. Reynolds took a position one way or the other as
22 to whether cigarette smoking caused lung cancer?

23 MR. DAVIS: Objection.

24 A. I said I don't remember whether they did or
25 didn't.

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1 MR. O'FALLON: We'll end for the day.

2 (Deposition adjourned at approximately
3 4:59 o'clock p.m.)
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1 C E R T I F I C A T E

2 I, David A. Campeau, hereby certify that I
3 am qualified as a verbatim shorthand reporter; that I
4 took in stenographic shorthand the foregoing
5 deposition of CLAUDE E. TEAGUE, JR. at the time and
6 place aforesaid; that the foregoing transcript,
7 Volume II, consisting of pages 115 - 251, is a true
8 and correct, full and complete transcription of said
9 shorthand notes, to the best of my ability; that the
10 noticing party has been charged for the original
11 transcript, and that ordering parties have been
12 charged the same rate for such copies of the
13 transcript.

14 Dated at Winston-Salem, North Carolina, 9th
15 this day of July, 1997.

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1 SIGNATURE PAGE

2 I, CLAUDE E. TEAGUE, JR., the deponent,
3 hereby certify that I have read the foregoing
4 transcript, Volume II, consisting of pages 115 - 251,
5 and that said transcript is a true and correct, full
6 and complete transcription of my deposition, except
7 per the attached corrections, if any.

8
9

(Please check one.)

10
11
12
13
14

____ Yes, changes were made per the attached
(no.) ____ pages.

____ No changes were made.

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19

CLAUDE E. TEAGUE, JR.

20 Sworn and subscribed to before me this day
21 of , 199___. (DAC)

22
23
24

Notary Public

25 My Commission expires: (DAC)

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